



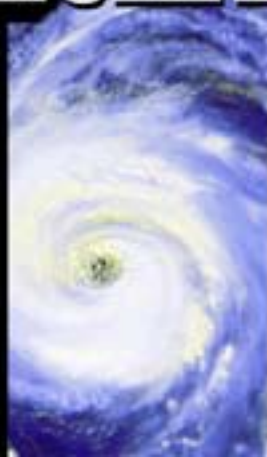
Florida Department of Agriculture and Consumer Services  
**CHARLES H. BRONSON, Commissioner**



# ANNUAL

FY 2004-2005

# REPORT





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# INTRODUCTION

The Florida Department of Agriculture and Consumer Services is the largest and most diverse state agriculture department in the country. Supporting Florida's farmers may be our best-known role, but it is just one of our many important responsibilities.

We inspect your grocery stores for cleanliness and safety. We handle consumer complaints, helping resolve disagreements between buyers and sellers. We inspect scales and gas pumps so you get what you pay for. We help during emergencies. The Department's activities touch the lives of virtually every Floridian every day. This annual report tells our story, a story that began nearly 140 years ago.

The Department ensures the safety and wholesomeness of Florida's food supply through rigorous inspection and testing programs. Retail food stores and processing plants are regularly monitored for proper sanitation and safe food-handling procedures. The Department checks the accuracy of product labels, net weights and grade standards. Lab tests ensure the absence of food-borne pathogens and other contaminants. Fruits and vegetables are analyzed for the presence of pesticide residue; dietary supplements, for dangerous ephedra alkaloids; and seafood, for unsafe levels of mercury.

If you have a problem with a merchant or business, we're the ones to call. The Department is the state's clearinghouse for consumer complaints. Our toll-free Florida-only helpline, 1-800-HELP-FLA, or 1-800-FL-AYUDA for Spanish-speaking consumers, is one of the busiest in the nation, with 20 full-time analysts staffing the phones. The Department regulates car repair shops, charitable organizations, health studios, dance studios, pawnbrokers, telemarketers, and sellers of travel. Our oversight in these areas is designed to promote a positive business environment in Florida and to protect consumers.

Agriculture is Florida's second-largest industry and has an annual economic impact estimated at \$62 billion. The support the Department provides agriculture helps keep the industry and our economy strong. We collect and disseminate Florida agricultural statistics; manage Florida's state and community farmers' markets; enforce state animal health regulations; inspect feed, seed and fertilizer; and help farmers fight crop pests and diseases. We provide farmers with assistance in the production of food and also in its marketing and promotion. The Department organizes trade missions and reverse trade missions, develops marketing campaigns and advertising strategies, and represents Florida agriculture at food conferences and trade shows around the globe.

Without a healthy environment, a healthy future for Florida agriculture is impossible. The Department encourages farmers and ranchers to use Best Management Practices to help conserve Florida's soil, surface water and groundwater. In addition, we provide comprehensive pesticide regulatory programs that protect the environment and public health. The Department includes the Division of Forestry, which manages about a million acres of state forestland for natural resource conservation and public enjoyment.

The Department is responsible for wildfire prevention, detection and suppression in Florida. We educate the public about wildfire prevention and manage the state's controlled burn program. In the event of a natural or manmade disaster, the Department provides emergency management. As the lead agency for Emergency Support Function 11, we are responsible for distributing food, water and ice to disaster victims. The Department also sees to the emergency needs of livestock and other animals. Our Division of Animal Industry is charged with securing emergency housing facilities, food, water and medical care for animals displaced during a disaster.



# MESSAGE

## from the Commissioner

In 2004-2005, Florida's agriculture industry faced what was perhaps its most challenging period in recent memory. Florida's farmers and farm workers were devastated by four back-to-back hurricanes that wiped out crops; tore apart horticulture greenhouses, dairy facilities and fishing boats; and caused severe damage to everything from oyster beds and citrus groves to the state's forestland.

Our farmers responded to the storms with characteristic courage, determination and energy. The Florida Department of Agriculture and Consumer Services was there to help them move forward.

In the immediate aftermath of the storms, the Department deployed hundreds of personnel to assist in the recovery effort. The Division of Forestry dispatched Interagency Incident Management Teams to impacted counties, along with chainsaw strike teams, potable water trailers, refrigerated trucks, incident planning teams, and heavy dozers for debris removal. Officers and investigators with the Office of Agricultural Law Enforcement deployed over a hundred personnel to assist the public following the storms. They performed urban search and rescue and anti-looting patrols, and formed price-gouging task forces to investigate predatory business practices. Meanwhile, the Division of Animal Industry, in conjunction with a host of public and private partners, assisted in animal rescue and evacuation, coordinated direct veterinary care, and provided emergency food and water to livestock and small animal shelters.

The damage sustained by Florida agriculture was unprecedented – fruit lay on the ground, pastureland was under water, and sweet corn and sugarcane fields were flattened. The Department helped farmers assess and then communicate the extent of their losses, and we worked around the clock to help secure federal assistance. Thanks to Washington's quick response, growers were soon able to get back on their feet and back to the business of feeding Florida – and America.

The Department worked to protect consumers as well as farmers in the wake of the storms. We launched public

education campaigns on the topics of food safety and storm preparation. We extended the hours of our price-gouging hotline, followed up on complaints, and filed numerous lawsuits against unscrupulous merchants. As mosquito breeding spiked following the heavy rains and flooding, our Division of Agricultural Environmental Services assisted with mosquito-control efforts.

Some effects of the hurricanes were immediately obvious, while others took weeks and even months to become apparent. The stealthy spread of citrus canker falls in the latter category. This serious bacterial disease had been almost eradicated in Florida until the 2004 hurricanes carried it to counties where it had never been seen before.

The hurricanes presented some of the year's greatest challenges, but they were not the only challenges or our only focus, of course. The Department developed multimedia campaigns to raise awareness about the importance of healthy eating and exercise. In addition, we cracked down on business opportunity and work-at-home scams. Our Division of Animal Industry continued to survey and test for avian influenza, and we deployed inspectors to pet stores to assure compliance with Florida's Pet Law. In the course of operating 22 Agricultural Interdiction Stations and six investigative regions, officers and investigators intercepted numerous plant and animal violations that could have been devastating to the state's agricultural industry. Once again, the Division of Marketing and Development's annual produce marketing promotions generated hundreds of millions of dollars in increased retail sales.

The Department's work is wide-ranging, complex, and critical to Florida's farmers and consumers. Here, I've only just scratched the surface. This annual report will tell you more about the important things we do.



**Charles H. Bronson**  
**Commissioner of Agriculture**





# SUPPORTING

## Florida Agriculture

**Statistical Reporting:** Reliable information is essential to making production, marketing and policy decisions for the agricultural community. The Florida Department of Agriculture and Consumer Services shares in a cooperative federal/state program responsible for collecting and disseminating Florida agricultural statistics. Information on the state's major commodities is gathered through on-site producer surveys, voluntary mail questionnaires, and telephone and personal interviews. Statistics compiled from these data are available in over 200 reports issued annually.

In the past year, the public relations efforts of the Florida Agricultural Statistics Service (FASS) included staffing an informational booth at industry trade shows for citrus and cattle. The booths allow FASS to promote its role in the industry and increase the visibility of our reports.

In 2004, Florida's agricultural cash receipts amounted to \$6.85 billion, 4.3 percent higher than in 2003. Cash receipts were lower for cucumbers, potatoes, tomatoes, snap beans, cotton, sugarcane, and floriculture; receipts were higher for cattle and calves, broilers, eggs, peanuts, strawberries and green peppers.

Florida leads the nation in cash receipts for oranges, grapefruit, tangerines, cucumbers, and sugarcane and ranks second in cash receipts for tomatoes, strawberries, sweet corn,



bell peppers, watermelon, squash, and greenhouse and nursery crops. Florida leads the nation in production of citrus, sugarcane, foliage plants, cut floral greens and tropical fish, and ranks second in the production of fresh market vegetables.

### Citrus

An initial citrus production forecast is issued in October and modified monthly through the citrus season based on fruit size measurements and observations on droppage. These forecasts are based exclusively on

objective data obtained directly by field personnel, including an extensive limb count survey conducted from July into September to estimate fruit set per tree. Florida's citrus growers, hit hard by three hurricanes, produced an estimated 151.2 million boxes of all oranges and 12.8 million boxes of grapefruit in the 2004-2005 season.

Cash receipts for all citrus crops sold in 2004 totaled \$1.24 billion compared to \$1.23 billion in 2003. Citrus accounted for 18 percent of all cash receipts in 2004.

### **Vegetables**

Florida growers harvested fresh market vegetables from 185,800 acres in 2004. Cash receipts for all vegetables amounted to \$1.38 billion, which amounted to 20 percent of all cash receipts in 2004. Tomatoes, peppers, sweet corn, cucumbers, and snap beans accounted for the largest amount of sales among vegetable crops.

### **Greenhouse and Nursery Production**

The total value of Florida greenhouse and nursery production exceeds \$1.5 billion. The foliage and floriculture industry contributed \$826 million, down from \$831 million in 2003.

### **Berries and Melons**

Strawberry production and prices for 2004 were up from the year before, resulting in cash receipts of \$178 million compared to \$129 million in 2003. Increases in prices and production for watermelons resulted in an increase in total value to \$67.2 million in 2004.

### **Field Crops**

Potato production in 2004 decreased from the previous year resulting in cash receipts of \$97.1 million to growers. Sugarcane production was down from the previous year and total cash receipts fell slightly to \$550 million in 2004. Cash receipts for peanuts increased to \$68.1 million,

due to increased production in 2004. Tobacco growers produced 9.8 million pounds of tobacco, valued at \$17.2 million in 2004. Decreases in production for cotton lint and cottonseed produced cash receipts of \$28.7 million in 2004, compared to \$40 million in 2003.

### **Other Fruits and Nuts**

Receipts for other fruits and nuts, such as avocados, blueberries, mangos and pecans, at \$91.7 million, were lower than in 2003.

### **Dairy**

An increase in milk production in 2004 and higher prices resulted in increased cash receipts of \$432 million compared to \$330 million in 2003.

### **Cattle and Calves**

The total number of cattle and calves was unchanged from 2004, but higher prices resulted in cash receipts for all cattle and calves of \$443 million compared to \$348 million in 2003.

### **Poultry and Eggs**

Egg sales in 2004 totaled \$160 million, up from \$145 million in 2003. Broiler production was down slightly in 2004, but sales increased to \$208 million from \$179 million in 2003 due to higher prices.

### **Aquaculture**

Aquaculture contributed an estimated \$96 million to total cash receipts. Tropical fish and aquatic plants accounted for the majority of the sales in this category.



## Honey

Florida was third in the nation in honey production in 2004 (behind North Dakota and South Dakota) with 20.1 million pounds valued at \$20.1 million. There were an estimated 205,000 colonies in the state in 2004.

## Fruit and Vegetable Inspection

The Department's Division of Fruit and Vegetables serves as a third party to provide on-request inspections for the purpose of certifying the quality and condition of produce shipped in and out of the state to national and international markets. The Department's services, provided in cooperation with the U.S. Department of Agriculture, enhance the marketability of fruit and vegetables produced and imported into Florida.

Committed to meeting the needs of Florida's fruit and vegetable industries through fiscally responsible quality assurance and technical assistance services, the Department continually strives to find innovative and cost-effective methods of inspection.

## License and Bond Service

The Department continued its support of Florida agriculture by conscientiously administering Florida's Dealers in Agricultural Products Law. This law ensures that Florida producers of agricultural products covered by the license and bond provisions receive proper accounting and payment for their products. The Department issued 4,473 licenses and collected \$561,420 in license fees during the fiscal year 2004-2005.

Department associates settled 139 dealer complaints in the past year. Complaints against dealers in agricultural products must be filed within six months from the date of sale and total a minimum of \$250. The efforts of Department associates resulted in a recovery of \$621,998.43 on behalf of Florida agricultural dealers.

The Department closely monitors dealers to make sure they maintain adequate bonds to protect Florida growers. Department associates conducted 719 bond and compliance audits of dealer's records during the year. These audits are designed to ensure that bond amounts are maintained, to determine whether unlicensed dealers were exempt from license and bond requirements, to determine if prospective licensees were conducting business in a manner requiring licensure, and to document violations of Department enforcement actions.

The Department opened 92 new enforcement cases, closed 141 cases, and collected \$69,199.60 in administrative fines during the 2004-2005 fiscal year. Enforcement actions resulted in an additional \$1,213,137.00 of bond protection for Florida growers, and 62 of the cases ended in licenses being issued.

## State Farmers' Markets

The Bureau of State Farmers' Markets manages four major program initiatives: State Farmers' Markets; Community Farmers' Markets; Women, Infants, and Children/Farmers' Markets Nutritional Program (WIC/FMNP); and County Fair permitting.



The hurricanes of 2004 visited heavy damage upon four markets. Some markets were even hit twice. The Fort Myers, Fort Pierce, Sanford and Wauchula markets sustained damage estimated at \$20-22 million.

State Farmers' Markets tenants and clients marketed \$771 million in wholesale value of produce, livestock, and value-added products during fiscal year 2004-2005. The bureau operated 13 wholesale farmers' markets and one livestock auction market during the fiscal year. These markets offer a mix of wholesale and retail produce, auction cattle, and attendant services such as farm supply, restaurants, and brokerage sales and shipping businesses. At year's end the available space for market tenants was 94 percent occupied for a total of more than 2.1 million square feet of warehouse, office and parking space.

More than 190 farmers operating at 23 community retail markets participated in the Women, Infants, and Children/ Farmers' Markets Nutrition Program (WIC/FMNP) this year. By encouraging consumption of fresh fruits and vegetables by WIC mothers and children, this program promotes a healthy diet while boosting farmers' sales at participating locations. The program was offered in 16 counties and provided over 35,000 WIC recipients with information about good nutrition and the importance of fresh fruits and vegetables in their daily diets.

## **The Community Farmers' Market** program assisted in the establishment of three new community farmers' markets, bringing the total number of markets in operation to 68.

The County Fair permitting section issued permits for 50 fairs. Approximately \$300,000 was distributed to these fairs and other public organizations as agricultural premium and awards reimbursements. These awards encourage participation by Florida's youth in agricultural programs.

The Community Farmers' Market program assisted in the establishment of three new community farmers' markets, bringing the total number of markets in operation to 68.

### **Livestock and Domestic Animals**

The Division of Animal Industry enforces state animal health regulations to prevent, control and eradicate infectious or communicable diseases of livestock and domestic animals. The division also works to protect the state from animal pests and diseases that threaten economic and public health.

By utilizing Bureau of Animal Disease Control and Bureau of Diagnostic Laboratories personnel and resources, the division:

- ▼ Monitors livestock and poultry on farms, ranches, and at animal concentration points for disease status and carries out

intensive animal disease investigations utilizing state-of-the-art laboratory testing for the diagnosis of domestic diseases, as well as emerging and potential foreign animal diseases.

- ▼ Works with producers and other cooperators to control animal diseases to ensure the health of the animal industries and to ensure safe and wholesome animal food products.

- ▼ Regulates, administers and enforces laws relating to animal health to prevent the introduction of diseased animals into Florida and to prevent the spread of diseases within the state.

- ▼ Monitors companion animal health issues, provides consumer protection assistance, and supports rule and legislation development to ensure the overall health of small animal populations and industries in Florida.

- ▼ Provides information to livestock producers, private practitioners and the public about regulatory requirements and best management practices through news releases, brochures, the Internet and personal visits.

- ▼ Develops, implements and practices emergency response plans in the event of foreign animal diseases and other natural or man-made disasters affecting animals and animal food productions.

Emergency Management is also a responsibility of the Division. Seventeen Emergency Support Functions (ESF) were established in the Florida Comprehensive Emergency Management Plan. Each ESF is headed by a lead or primary agency or organization, which was selected based on its authorities, resources and capabilities in that functional area. The Department's Division of Animal Industry is the primary lead responder for ESF-17, which was organized to ensure rapid response to animal and agricultural needs in a disaster scenario.

### **Animal Disease Control**

The Department, through the Division of Animal Industry, is responsible for administering the state's animal disease prevention, control and eradication programs. In cooperation with USDA, the Department has moved beyond traditional perceptions of animal disease control and eradication programs by addressing public health issues and major economic impacts with the development of new programs. Recent outbreaks of Exotic Newcastle Disease, Pathogenic Avian Influenza,



and Vesicular Stomatitis in other states, detection of a BSE-infected cow (Canadian origin) in Washington State, and another BSE case recently disclosed in Texas emphasize the necessity of having a strong, active animal disease monitoring program in place with an open line of communication with public officials.

Rather than perceiving disease control and eradication programs as bureaucratic obstacles, the public is demanding that more be done to protect the nation's animal-origin food supply. These needs – as perceived by the producer, the consumer, and associated animal industries – will influence the overall acceptability and effectiveness of future disease control and eradication programs.

The Department's program activities take into consideration the changing face of animal industries in Florida and throughout the United States. Numerous species previously considered exotic or wildlife have straddled or crossed the line between wildlife and agriculture. Government and industry both are faced with challenging learning curves in veterinary medicine and disease risk analysis for unfamiliar species, with few or no precedents. The Department recognizes the need to include these emerging animal industries with traditional livestock industries so they can coordinate and respond to a greater range of issues.

#### **National Animal Identification System (NAIS) Florida Animal Identification Program (FAIP)**

The National Animal Identification System (NAIS) is being implemented by the Florida Department of Agriculture and Consumer Services, Division of Animal Industry, on a voluntary basis. In fiscal year 2004-2005, Florida entered a cooperative agreement with the U.S. Department of Agriculture (USDA) to develop an animal identification system for Florida. The Division of Animal Industry implemented a premises identification system and expanded work with producers and industry groups on pilot animal identification projects. Division personnel continue to work with producers and industry leaders to develop practical approaches to meet the animal health and animal movement challenges of today's global marketplace.

Beginning in January 2005, through June 30, 2005, a total of 584 Florida premises were registered. This methodical start set the foundation for further development of the program, resulting in approximately 400,000 cattle on registered premises in the first six months.

Pilot projects focused on four segments of the Florida cattle industry to test the application and aid in the implementation of the basic animal tracking and disease management directives of the NAIS. Participating cattlemen viewed the feedback of performance and health-related information as a breakthrough in ranch management and marketing.

The Calf segment tracked electronically identified (EID) Florida calves in interstate commerce while evaluating tag retention and electronic readers and technology necessary to support the electronic Interstate Certificate of Veterinary Inspection (ICVI). Approximately 17,000 Florida calves shipped to Texas and Kansas feedlots were part of this project.

The Cull Cow segment tracks cattle individually identified by conventional or electronic means to verify farm or ranch of origin and age, and continues to track them as they move through the processing system. Florida Producers received industry-driven monetary premiums for these source-verified cattle. Florida Animal Identification Program EID and visual tags were provided to stimulate further application of individual animal ID.

The Seminole Tribe of Florida segment electronically identified approximately 12,000 head of brood cows and their calf crop to aid in computerizing record management of 68 individual herd owners' cattle managed in commingled herds. The addition of electronic scales and readers put the tribal cattle herd at the cutting edge of computerized cattle management systems. This allowed the Seminole Tribe to incorporate individual animal ID for information management and value-added opportunities.

The Equine segment implemented an individual horse identification card program. The ID cards show a photo of the horse with test history and health certification. Ten states now accept the Florida Equine Interstate Passport Card for equine movements. As of July 1, 2005, premises registration will be required for passport cards and event extensions. Two-hundred horses were implanted with electronic microchips to test and demonstrate the technology and monitor tracking through the state's Agricultural Interdiction Stations.

#### **Animal Movement**

The monitoring of the movement of livestock into Florida by the Official Certificate of Veterinary Inspection is the Department's first line of defense against the inadvertent

importation of animal diseases. When diseases threaten livestock in other parts of the country, the Department may enact additional regulations for animals being imported into Florida, often requiring prior notification, permission and permitting from the Department before shipments are allowed in through the Agricultural Interdiction Stations.

### **Health Certificates**

During fiscal year 2004-2005, the division processed 47,536 certificates representing more than 727,609 animals moving into or out of Florida. Beef and dairy cattle were the most common type of animals moving into Florida, along with horses, swine, goats and exotic species. All livestock transported into Florida are subject to certificate verification by Agricultural Law Enforcement officers.

### **Carcass Haulers Permits**

The purpose of Carcass Hauler Permits is to effectively control or eradicate diseases. During fiscal year 2004-2005, 121 permits were issued. By June 30 of each year, individuals or businesses are required to apply for, and receive, a permit to haul any dead, dying, disabled or diseased animal, any product of an animal that died other than by slaughter, or any inedible animal product not meant for human consumption.

### **Livestock Haulers Permits**

The purpose of the program is to protect owners of animals and legitimate businesses that haul livestock by improving control over livestock thefts and other illicit livestock operations. During fiscal year 2004-2005, the division issued 1,659 livestock haulers' permits/tags. These permits/tags are required for each vehicle by any individual hauling or transporting livestock for hire on Florida's public roads or highways.

For a fee, a special livestock hauler license tag is issued and is valid for the current calendar year. Starting in 2006, the division will begin using stickers on the issued tags. Each fifth year after 2006, livestock haulers will receive a new tag with a sticker for that year.



### **Marks and Brands Program**

In fiscal year 2004-2005, the division issued 196 new brand certificates, transferred 24 brands, and renewed 875 certificates. Currently, the total number of brands registered in Florida is 5,482.

Branding of livestock in Florida is not required, but if done, owners must register them with the state. Registration is accomplished by submitting an application to the division with a fee of \$10.

Livestock brand registration was centralized at the state level in 1945. The change from county by county registration was instituted to prevent duplication of brands by different owners, especially as commerce and trade increased among different parts of the state.

### **Poultry**

The division's Poultry Disease Control Unit conducts inspections of various poultry facilities in Florida and tests flocks in accordance with USDA's National Poultry Improvement Plan (NPIP). In Florida, this involves approximately 24 hatcheries, 4 dealers, and more than 350 independent flocks. In conjunction with this program, there were 8,202 birds tested for pullorum-typhoid (PT).

Department inspectors continue to inspect and test for PT on poultry coming into Florida fairs for exhibition. During 2004-2005, the Department inspected 6,642 birds at 44 fairs. Inspectors tested 3,165 of the birds exhibited at the fairs.

In the Miami-Dade County area, the Department administers a surveillance program for Avian Influenza (AI). During 2004-2005, 35 premises were tested for AI, with 145 serum samples and 68 (340 birds) swab samples submitted to the Department's diagnostic laboratories.

Poultry activities included the testing and monitoring of commercial broiler breeding flocks for *Mycoplasma gallisepticum* (MG), *Mycoplasma synoviae* (MS) and AI. During 2004-2005, the Department tested 148 flocks and submitted 11,655 samples for MG and for MS to the Department's diagnostic laboratories for testing.

Due to recent outbreaks of Exotic Newcastle Disease (END) and Avian Influenza (AI), the Department developed and implemented the Avian Disease Surveillance Plan (ADSP) to monitor poultry for the presence of these diseases and initiate appropriate control/eradication measures if their presence is detected in Florida. The ADSP consists of five elements:

education, training, sample collection, technology updates and Agricultural Law Enforcement surveillance. During fiscal year 2004-2005, the Department inspected 270 premises for END and AI and tested 3,328 birds.

The Department also conducts quarterly hatchery inspections at commercial egg, meat, and turkey companies.

During fiscal year 2004-2005, the Department conducted 13 inspections and submitted 468 agar plate test samples. In addition, the Department conducts routine inspections of dead bird disposal methods at commercial poultry farms. There were 380 commercial poultry farms inspected during 2004-2005.

The Poultry Best Management Practices (BMPs) Quality Assurance Program was implemented in 2001; currently, 190 farms are enrolled in the program and inspected by the Department.

The Department implemented a poultry database for permitting all poultry and eggs imported into the state or transshipped through Florida to other countries. During this fiscal year, 1,540 import permits and 1,138 transshipment permits were issued representing 34,125,355 live birds and 15,419,443 dozen hatching eggs.

### **Cattle**

During the 2004-2005 fiscal year, 704,404 cattle were inspected at livestock markets.

### **Brucellosis**

Brucellosis is a contagious, costly disease of ruminant animals that also affects humans. Although brucellosis can attack other animals, its main threat is to cattle, bison and swine. The disease is also known as contagious abortion or Bang's disease. In humans, it's known as undulant fever because of the severe intermittent fever accompanying human infection, or Malta fever because



it was first recognized as a human disease on the island of Malta. The disease is caused by a group of bacteria known scientifically as the genus *Brucella*. Three species of *Brucella* cause the most concern: *B. abortus*, principally affecting cattle and bison; *B. suis*, principally affecting swine and reindeer but also cattle and bison; and *B. melitensis*, principally affecting goats but not present in the United States. In cattle and bison, the disease currently localizes in the reproductive organs and/or the udder. Bacteria are shed in milk or via the aborted fetus, afterbirth, or other reproductive tract discharges.

There were 485 herds representing a total of 79,022 cattle tested in the field for brucellosis during the fiscal year, and none were found to be infected. An additional 73,933 cattle were tested at slaughter. At livestock markets, 1,019 cattle were tested, with none found to be infected. During the same period, 78,034 cattle were vaccinated against brucellosis.

animals, and so TSE are usually identified from the brain tissue of dead animals. There is no vaccine or cure for these diseases, and once symptoms appear, TSE are invariably fatal.

The TSE family of diseases includes Bovine Spongiform Encephalopathy (BSE); Scrapie, which affects sheep and goats;

Transmissible Mink Encephalopathy (TME); Feline Spongiform Encephalopathy (FSE); Chronic Wasting Disease (CWD) of deer and elk; and in humans, kuru, both classic and variant Creutzfeldt-Jakob Disease (CJD and vCJD), Gerstmann-Straussler-Scheinker Syndrome, and fatal familial insomnia. TSE have also been reported in captive exotic ruminants, and in exotic and domestic cats. The agent isolated from several of these cases is indistinguishable from BSE in cattle, suggesting the occurrence of TSE in these species resulted from BSE-contaminated feed.

## **Bovine Spongiform Encephalopathy (BSE),** widely referred to as “mad cow disease,” was first diagnosed in Great Britain. BSE was discovered in Canada in 2003, Washington State in 2004, and Texas in 2005.

### **Tuberculosis**

Tuberculosis (TB) is a contagious disease of both animals and humans. It is caused by three specific types of bacteria that are part of the *Mycobacterium* group: *Mycobacterium bovis*, *M. avium* and *M. tuberculosis*. Bovine TB, caused by *M. bovis*, can be transmitted from livestock to humans and other animals. No other TB organism has as great a host range as bovine TB, which can infect all warm-blooded vertebrates. *M. avium* can affect all species of birds, as well as hogs and cattle. *M. tuberculosis* primarily affects humans but can also be transmitted to hogs, cattle and dogs.

Last year, the Department tested 109 herds representing 2,004 cattle for tuberculosis; no cattle were found to be infected.

### **Transmissible Spongiform Encephalopathies**

Transmissible Spongiform Encephalopathies (TSE), or prion diseases, are rare forms of progressive neurodegenerative disorders that affect both humans and animals and are caused by agents that produce changes in the brain. TSE typically have incubation periods ranging from several months to years before symptoms become apparent. No conventional serologic test can identify TSE-infected

### **Bovine Spongiform Encephalopathy (Mad Cow Disease)**

Bovine Spongiform Encephalopathy (BSE), widely referred to as “mad cow disease,” was first diagnosed in 1986 in Great Britain. BSE was discovered in Canada in 2003, Washington State in 2004, and most recently in Texas in 2005. The case of the BSE-infected cow from Washington State was later found to have originated from a Canadian herd. These isolated cases generated a rapid response from state and USDA officials, and resulted in new control, testing, and surveillance programs designed to rule out and prevent further cases in U.S. herds. The Department continues to work with federal and state partners to conduct surveillance and to prevent the introduction of BSE from foreign sources. During the 2004-2005 fiscal year, 4,458 samples were tested from Florida herds by the National Veterinary Services Laboratory (USDA). All were confirmed negative.

### **Johne's Disease**

Johne's Disease is a contagious, chronic and usually fatal infection that affects primarily the small intestine of ruminants. All ruminants are susceptible to Johne's Disease. Johne's Disease is caused by *Mycobacterium paratuberculosis*, a hardy bacteria related to the agents





of leprosy and tuberculosis. The disease is worldwide in distribution. Signs of Johne's Disease include weight loss and diarrhea with a normal appetite. Several weeks after the onset of diarrhea, a soft swelling may occur under the jaw (bottle jaw). Bottle jaw, or intermandibular edema, is due to protein loss from the bloodstream into the digestive tract. Animals at this stage of the disease will not live very long, perhaps a few weeks at most. Signs are rarely evident until two or more years after the initial infection, which usually occurs shortly after birth. Animals are most susceptible to the infection in the first year of life.

For fiscal year 2004-2005, the Florida Voluntary Johne's Program had 579 dairy and beef operations enrolled. The Live Oak Diagnostic Laboratory conducted 20,034 tests. The state of Florida is successfully meeting the guidelines developed cooperatively with the USDA for continued funding of this program.

### Small Ruminants (Sheep and Goats)

Scrapie is a fatal, degenerative TSE affecting the central nervous system of sheep and goats. Over the past year, 20 new flocks were enrolled in the Scrapie-free Flock Certification Program (SFCP) and none were withdrawn. Florida's number of flocks certified "Scrapie-free" remains unchanged at two. Twenty-two new flocks were added to the Johne's Herd Plan Program; 17 of those with goats alone. This brings the total number of flocks in the program to 55. Five-hundred eight-five goats and nine

sheep were tested for tuberculosis and there are now a total of 32 herds that are accredited as tuberculosis-free. Ten sheep and 786 goats were tested for brucellosis and 34 herds have been certified brucellosis-free.

### Equine

#### Contagious Equine Metritis

Contagious Equine Metritis (CEM) is a highly contagious venereal disease that can affect all equids and is caused by the bacterium *Taylorella equigenitalis*. The infection can result in short-term infertility in mares that is sometimes associated with a vaginal discharge and, rarely, abortion. Mares can become unapparent carriers of the bacterium in their reproductive tracts and can shed the organism into the environment and transmit it through subsequent breeding. Stallions do not develop clinical signs but can carry the organism on their genitalia for years and spread the disease by breeding susceptible mares.

CEM is considered an exotic disease in the United States, which means it is not found in the native horse population. However, there are at least 25 countries and territories where CEM exists, including a number of the member states of the European Union. CEM is a serious venereal disease because it is highly contagious. There is no vaccine against CEM, but there are ways to detect infected horses and to rid infected stallions and mares of the bacterium via treatment and testing protocols.

Florida utilized 20 Approved CEM Quarantine Facilities to handle the CEM importation requirements for horses entering the United States. During 2004-2005, 162 imported stallions and mares were processed through these facilities. There were no positive horses detected.

### Equine Infectious Anemia

Equine Infectious Anemia (EIA), also known as “swamp fever,” is an incurable blood-borne disease that affects only members of the equine species. It is transmitted primarily by large biting flies but may also be transmitted by contaminated needles and surgical instruments and through breeding. Once an animal is infected, it remains infected for the rest of its life. While some horses die from acute infections, most remain as seemingly symptom-less carriers. However, infected animals are still capable of transmitting the disease and pose a threat to healthy animals. There is currently no vaccine or effective treatment for this disease.

EIA is a disease of worldwide significance. In some foreign countries, the disease incidence may be as high as 50 percent or more. In the United States, it occurs in most every state; however, 90 percent of the cases occur in what is known as the “hot zone,” those states bordering the South Atlantic Coast, the Gulf of Mexico, and the Mississippi River Basin, including Oklahoma and Texas. Disease risk in these areas is higher because environmental conditions are more favorable for prolonged insect vector seasons.

Florida’s equine industry continues to be a vital economy to the state, and the Department plays an important role in safeguarding this important state resource from the potential devastating effects of this disease. With support and cooperation from the state’s equine industries, Florida was one of the first states to implement an EIA disease control program.

Last year, more than 2.1 million horses were tested for EIA nationally. In Florida, more than 142,617 horses were tested, with only 4 reactors disclosed. On a national level, only 10 to 15 percent of the equine population is tested annually, but in Florida, more than 30 percent of the population is tested annually. In spite of being in the EIA “hot zone,” Florida’s EIA control program keeps the disease incidence at a very low rate (0.013 percent), which is well below the national level of 0.015 percent. This can be attributed to the Department’s effective EIA control program and strong support from the state’s equine industry.

### Equine Piroplasmosis

Equine Piroplasmosis (EP) is an animal disease caused by the parasitic organisms *Babesia equi* and *Babesia caballi*, and is primarily transmitted to horses by ticks. The greatest risk of introduction of this disease is through importation of horses from countries where EP is endemic.



Florida is the only state that monitors the status of horses imported from Puerto Rico and the U.S. Virgin Islands, where EP is endemic. Florida requires all horses to be negative for EP prior to shipment and to be retested 30 to 60 days after arrival. Last year, the Department issued 115 permits covering 118 horses, with negative results on all tests performed.

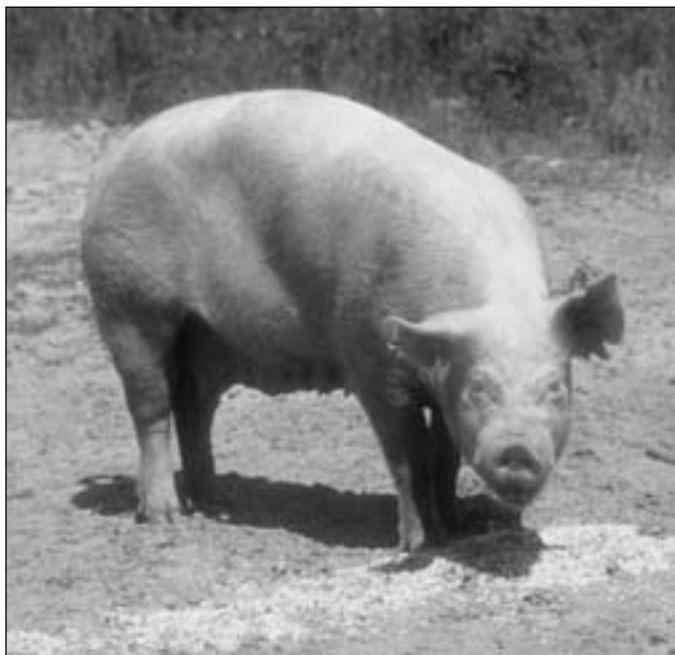
### Arboviruses

Arthropod-borne viruses (arboviruses) are viruses that can be transmitted to humans and horses by mosquito bites. Arboviral infections in humans and horses may result in development of a fatal case of encephalitis: inflammation of the brain and spinal cord. These viruses are maintained in nature through continuous transmission between natural reservoir hosts (primarily wild birds) and certain species of

mosquitoes (disease vectors). Humans and horses do not contribute to the spread of these diseases and, as such, are considered “dead-end” hosts. Although other animals are susceptible to arbovirus infections, humans and horses are most susceptible to developing clinical disease. The Department is actively involved in the monitoring of equine populations for Eastern Equine Encephalomyelitis (EEE) and West Nile Virus (WNV).

### **Eastern Equine Encephalomyelitis**

Eastern Equine Encephalomyelitis (EEE) is one of several arboviruses transmitted by infected mosquitoes that may cause fatal encephalitis in humans and horses. Mosquitoes become infected with the virus after feeding on wild birds. Transmission of EEE from horse to horse or horse to human via mosquito bites is unlikely because humans and horses are poor reservoirs for the virus. In humans and horses, the mortality rate is extremely high: 50 percent or more in humans and 80 to 90 percent in horses.



EEE is most often detected in horses during the months of May through September. Each year, Florida reports 25 to 50 cases throughout the state. Many of these cases appear in the same areas year after year. Mosquito activity in Florida may occur on a year-round basis; therefore, cases of EEE may be reported during any given month. About every seven to 10 years, the number of cases reported reaches epidemic proportions and may be well over 100.

In 2003, the number of cases reached epidemic levels with 207 cases being reported. During fiscal year 2004-2005, there have been 115 positive equine cases with additional tests pending results.

### **West Nile Virus**

West Nile Virus (WNV) is another mosquito-borne viral disease that may cause encephalitis in humans and horses, but unlike EEE, the clinical course of the disease is not as severe, and mortality rates are much lower: 25 to 30 percent in horses and less than 10 percent in humans.

WNV is commonly found in wild birds, humans and other vertebrate animals in Africa, Eastern Europe, Western Asia and the Middle East, but until 1999 had not previously been documented in the Western Hemisphere. During the late summer of 1999, WNV was identified in New York City for the first time. By the end of the year, cases in wild birds, humans and horses had been documented in three Northeastern states. The virus survived the winter, and during 2000 continued to spread to 12 eastern coastal states.

By 2001, the virus had spread to 18 states, including Florida. More than 730 equine cases were confirmed, with 156 fatalities. Florida alone reported 492 cases with 82 deaths. In 2002, WNV expanded rapidly westward. Almost 1,500 equine cases were reported in 40 states. Approximately one-third of the affected horses died. Florida reported 499 cases with 92 deaths. In 2003, there were 117 equine cases reported. During fiscal year 2004-2005, only four equine cases were confirmed with WNV.

The Department continues to work closely with its other Arboviral Working Group partners to provide valuable surveillance data on equine cases. The EEE/WNV Equine Database has been an invaluable tool in tracking these diseases and reporting them to the working group in a timely manner. Early detection and reporting of arboviral cases help to warn citizens to take precautions against mosquito bites and to remind horse owners to ensure that their horses are appropriately vaccinated.

### **Swine**

During the 2004-2005 fiscal year, 86,040 swine were inspected on 1,977 premises by field personnel, 16,597 swine were inspected at market and 7,439 were inspected at fairs.





### Swine Brucellosis

Florida has established guidelines for producers to become Commercial Production Swine Herds (CPSH). This allows testing of swine on farms if they wish to achieve Qualified/Validated or Modified-Monitored/Validated status for their herds. They must first pass a risk assessment and blood testing must yield negative results before they will be considered CPSH. There were a total of 545 animals tested in fiscal year 2004-05.

### Pseudorabies (Aujeszky's Disease)

Pseudorabies is a viral disease most prevalent in swine, often causing newborn piglets to die. Older pigs can survive infection, becoming carriers of the pseudorabies virus for life. Other animals infected from swine die from pseudorabies, which is also known as Aujeszky's disease or "mad itch." Infected cattle and sheep can first show signs of pseudorabies by scratching and biting themselves. In dogs and cats, pseudorabies can cause sudden death. The virus does not cause illness in humans.

Florida is now at a Stage V Status for pseudorabies. Commercial production swine herds must be tested annually and remain negative for pseudorabies. During the 2004-2005 fiscal year, 575 animals were tested for pseudorabies.

### Garbage Feeders

The cooperative state-federal program implements the Swine Health Protection Act, which establishes standards for feeding waste to swine and is designed to prevent the

introduction of foreign animal diseases such as Foot-and-Mouth Disease (FMD) and Classical Swine Fever (CSF) into U.S. herds. Ninety-four garbage feeder operators, who collect edible waste food products that are cooked and fed to swine, were licensed in 2004-2005. The Department conducted 1,476 facility inspections, inspecting a total of 73,030 garbage-fed swine for contagious and infectious disease.

### Cervidae

Florida's captive cervid industry continues to grow. While this industry is licensed primarily by the Florida Fish and Wildlife Conservation Commission (FWC),

the Department is a partner working with disease control issues and importation policies.

Rule 5C-26 addresses the increases in movement of cervid into the state by requiring that all imports originate from a herd participating in USDA surveillance/prevention programs. They must be Chronic Wasting Disease (CWD) Free, and from Accredited Tuberculosis-Free and Brucellosis-Free herds.

The Department's Captive Cervid Health Plan requires mandatory testing of all animals that die or are killed if they are older than 16 months of age. Passive surveillance of symptomatic wild deer is also under way. To ensure these requirements are enforced, state personnel work with owners of captive cervid herds on disease management programs. They visited 333 premises during the past fiscal year. No animals with positive results for tuberculosis, brucellosis or CWD have been found.

The Department continues to monitor the status of certain diseases affecting cervidae in other regions of the United States.

### Chronic Wasting Disease

Chronic Wasting Disease (CWD) is a TSE of deer and elk. To date, this disease has been found only in cervids (members of the deer family) in North America. First recognized as a clinical "wasting" syndrome in 1967 in mule deer in a wildlife research facility in northern Colorado, it



was identified as a TSE in 1978. CWD is a progressive disease that attacks the brains of infected animals, causing the animals to become emaciated, display abnormal behavior, lose bodily functions and subsequently die. CWD has become of particular concern due to its lack of known prevention and treatment, lack of live animal diagnostic test, and unknown origin and means of transmission. There is no known relationship between CWD and any other TSE of animals or people, and there is no evidence that CWD poses any risk to human health.

On April 9, 2002, the Department issued an emergency rule, 5C-ER-02-1, Chronic Wasting Disease. Current growth and resultant rapid widespread movement in the cervidae farming industry are increasing the potential for the spread of CWD and other diseases of cervidae. Due to the potential threat CWD poses to Florida’s captive and free-ranging cervid populations, the emergency rule enacted a 90-day ban on importation of cervidae from any state or location with reported cases of CWD and a 90-day restriction on importation of cervidae from all other states or locations. A permitting and reporting system was rapidly implemented by the Department to monitor interstate and intrastate movement of cervidae. The final rule for cervidae, 5C-26, became effective on November 27, 2002. This rule requires that cervidae being imported into Florida originate from a herd that participates in an official CWD surveillance/prevention program and be free of CWD for at least 60 months prior to importation.

CWD has been diagnosed in both captive and free-ranging elk, mule deer, white-tailed deer and black-tailed deer located in Canada, Colorado, Illinois, Kansas, Minnesota, Montana, Nebraska, New Mexico, South Dakota and Wisconsin. The Department continues to work with the cervidae industry, USDA, and other state and federal agencies to prevent the introduction of CWD and conduct surveillance in farmed and wild cervidae populations in Florida. Currently, there are 241 cervidae herds enrolled in herd health plans. During the 2004-05 fiscal year, 550 samples from free-ranging deer were submitted to the Kissimmee Diagnostic Laboratory, and all were reported as negative.

**Companion Animal  
and Small Animal Programs**

During fiscal year 2003-2004, the Division of Animal Industry designated a separate program area to monitor companion animal health issues within the state and ensure compliance with existing rules and legislation affecting companion animals. Efforts have continued and expanded as compliance with interstate and intrastate small animal movement requirements, health certification by accredited veterinarians in Florida, consumer protection and assistance, and rule development/legislative support areas are monitored.

A tracking system was implemented to address consumer complaints involving health certification and the sale of small animals (dogs and cats), covered by Section 828.29, F.S., the Pet Lemon Law, and Section 585.145, F.S., relating

**The Department continues to work with  
the cervidae industry, USDA, and other  
state and federal agencies to prevent  
the introduction of Chronic Wasting  
Disease in farmed and wild cervidae  
populations in Florida.**

to the control of animal diseases as well as Departmental rules. A total of 306 complaints were processed. These complaints involved 257 dogs and 17 cats and included complaints against 109 pet stores, 77 breeders, 51 brokers, 18 veterinary clinics, 13 private sellers, two boarding kennels and four miscellaneous subjects.

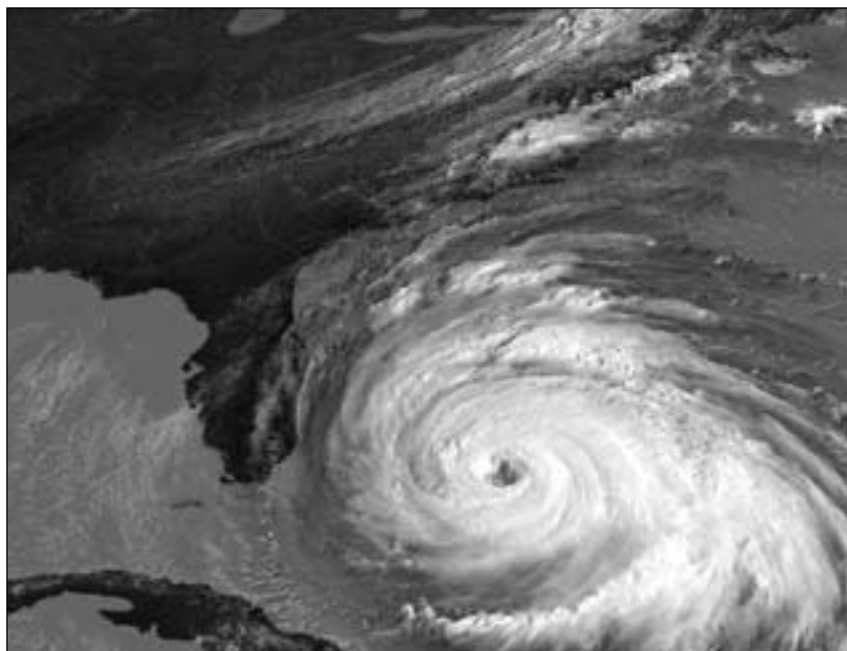
Mediation of consumer complaints resulted in refunds of purchases in the amount of \$21,679. A total of 57 cases/ complaints were referred to other agencies, including 33 to the Office of Agricultural Law Enforcement for further investigation. Five-hundred seventy-one educational letters were sent to sellers and their veterinarians in Florida in an effort to inform them of the requirements of Florida statutes governing the sale and health certification requirements of dogs and cats sold in or transported to Florida.

Between December 2004 and June 2005, division inspectors visited 135 pet stores to review Official Certificates of Veterinary Inspection and inform sellers about the requirements of the Pet Lemon Law. There were 75 pet cemeteries inspected during the same time period. Operators were advised of facility requirements and, when appropriate, other state and/or county authorities were notified of possible issues discovered during the course of the inspections.

Division staff also conducted 411 onsite inspections of petting zoo facilities. These inspections resulted in 219 risk assessments. Flyers were distributed explaining the risks of human-animal contact and prevention of disease transmission by exercising proper sanitation procedures.

The plan calls for annual exercises to determine the ability of state and local governments to respond to emergencies. It also defines the responsibilities of state agencies and volunteer organizations. The plan describes the basic strategies, assumptions, operational goals and objectives, and mechanisms through which the state will mobilize resources and conduct activities to guide and support local emergency management efforts through preparedness, response, recovery and mitigation.

To facilitate effective operations, the plan adopts a functional approach that groups the types of assistance to be provided into 17 Emergency Support Functions (ESF). Each ESF is headed by a lead or primary agency or organization, which has been selected based on its authorities, resources, and capabilities in that functional area.



ESF 17 is organized to ensure rapid response to animal and agricultural needs in the disaster area. The Department of Agriculture and Consumer Services is the primary agency for ESF 17. The Division of Animal Industry assigns personnel to staff ESF 17 at the State Emergency Operation Center as well as in the field and provides daily direction. This direction includes the assignment of personnel to handle requests for assistance and ensures that requests for assistance are prioritized, met and documented.

ESF 17 establishes coordination with other Emergency Support Functions, multiple county, state, and federal agencies and volunteer organizations, and

maintains open communications with these agencies and organizations in both the planning and operations stages.

In order to effectively coordinate the efforts of multiple organizations, a State Agricultural Response Team (SART) was formed in 2003. SART is an interagency, coordinated effort dedicated to effectively communicating and planning for animal and agriculture-related emergencies and disasters that occur within Florida.

The SART team's mission is to develop and implement procedures and train participants to facilitate a safe, environmentally sound and efficient response to

## Emergency Management

In the aftermath of Hurricane Andrew in 1992, Chapter 252, F.S., (State Emergency Management Act) was enacted which mandates the development of the Florida Comprehensive Emergency Management Plan. The plan establishes a framework through which the state of Florida prepares for, responds to, recovers from, and mitigates the impacts of a wide variety of disasters that could adversely affect the health, safety and/or general welfare of the residents of the state. The plan provides guidance to state and local officials on procedures, organization and responsibilities. It also provides for an integrated and coordinated local, state and federal response.

agricultural emergencies on the county, regional and state levels. SART operates under the direction of an advisory board made up of representatives from supporting agencies and organizations.

**Current agencies and organizations supporting SART include:**

Emergency Animal Rescue Society  
 Farm Credit of South Florida  
 Farm Service Agency  
 FDACS, Bio and Food Security Preparedness  
 FDACS, Division of Agricultural and Environmental Services  
 FDACS, Division of Animal Industry  
 FDACS, Division of Dairy Industry  
 FDACS, Division of Plant Industry  
 Florida Animal Control Association  
 Florida Association of Kennel Clubs  
 Florida Cattlemen's Association  
 Florida Farm Bureau Federation  
 Florida Nursery Growers and Landscape Association  
 Florida Sea Grant  
 Florida Veterinary Medical Association  
 Humane Society of the United States  
 Southeast Milk, Inc.  
 Sunshine State Horse Council  
 University of Florida, Institute of Food and Agricultural Sciences  
 University of Florida, College of Veterinary Medicine  
 University of Florida, Plant Pathology  
 USDA, Farm Service Agency  
 USDA, APHIS, Plant Pesticide Quarantine  
 USDA, APHIS, Veterinary Services  
 USDA, APHIS, VS, Aquaculture  
 USDA, Office of Inspector General

The 2004 hurricane season impacted Florida with an unprecedented one tropical storm and four major hurricanes within a six-week period. As a result of this activity, Division

of Animal Industry personnel were uniquely stressed and tested. Almost all division personnel were either hurricane victims or involved with response activities. A majority (45) of the field operations personnel were actively engaged in response activities and both laboratories experienced damage and significant down-time during these weather events.

As the lead agency for Emergency Support Function 17, Agriculture and Animal Issues, at the State Emergency Operations Center, division staff provided round-the-clock staffing for more than 65 days of Level One activation during the 2004 hurricane season. In this role, a wide variety of response efforts were coordinated to provide relief to animals and agricultural communities in the affected areas. Division personnel were involved in these activities which included:

- ▼ Identified facilities that housed pets and horses in Florida and other states during evacuation.
- ▼ Performed over 1,200 damage site assessments.
- ▼ Established multiple ESF 17 distribution sites where food and supplies were provided.
- ▼ Distributed over 150 tons of donated pet and livestock feed.
- ▼ Distributed over \$250,000 worth of fencing materials and animal care products.
- ▼ Established and coordinated a toll-free hotline for donations and volunteer assistance.

### **Diagnostic Laboratories**

Due to coastline, climate, and importation of an increasing number of non-native animal species, Florida occupies a critical position in the nation's agricultural picture. The importation of animals poses a constant threat for the introduction of diseases, and the continued threat of terrorism raises concerns about the state's vulnerability to deliberately introduced biohazards. To meet these challenges, the Department's Diagnostic Laboratories are staffed with veterinarians and technicians who are highly trained in a range of diagnostic disciplines, including bacteriology, virology, molecular biology, toxicology, parasitology and pathology.

Many diseases are considered potentially harmful to Florida's animal industry or the general public and are listed as reportable to the Department. In addition to the monitoring and surveillance of animal diseases, the laboratories also provide thousands of tests each year for diseases of public health significance, such as West Nile Virus, Lyme disease, Rocky Mountain spotted fever, chlamydia (psittacosis), toxoplasmosis, giardiasis, salmonellosis, anthrax and many others.

The Diagnostic Laboratories at Kissimmee and Live Oak comprise a laboratory system certified by the American Association of Veterinary Laboratory Diagnosticians (AAVLD) as an all-species, full-service laboratory system. AAVLD certification is recognized worldwide.

The Bureau of Diagnostic Laboratories received Operating Capital Outlay funds for replacement equipment in the laboratories. Those funds were utilized to upgrade laboratory equipment and purchase biological safety cabinets, microscopes, PCR equipment, laboratory grade refrigerators and other equipment to meet the demands of new tests.

The Diagnostic Laboratories performed 1,585,476 procedures during the 2004-2005 fiscal year.

### **Kissimmee Animal Disease Diagnostic Laboratory**

The Kissimmee Diagnostic Laboratory, one of two laboratories in the State of Florida Diagnostic Laboratory System, is a full-service, all-species laboratory, receiving domestic and exotic animal species with the exception of primates. A wide variety of tests ranging from full necropsy/anatomical pathology service to clinical pathology, histopathology and immunohistochemistry are offered. Additional tests include microbiology (bacteriology/virology/serology), toxicology and molecular diagnostics.

The Florida Animal Disease Diagnostic Laboratories system completed construction in fiscal year 2003-2004 of its first Level 3 Biosafety Laboratory at the Kissimmee Laboratory facility. This addition will provide rapid diagnostic procedures for diseases that are considered foreign in the United States and are the result of an outbreak due to unintentional introduction of an agent or due to bioterrorism. This initiative was recognized by the U.S. Department of Agriculture (USDA), which designated the Kissimmee

Laboratory as a part of a pilot national laboratory system. This initial program identified 12 laboratories across the United States to augment the National Veterinary Services Laboratory (USDA) in Ames, Iowa, and the Foreign Animal Disease Diagnostic Laboratory (USDA) at Plum Island, New York. This laboratory network was developed to provide increased Homeland and Domestic Security both in Florida and the nation.

**In addition to the monitoring and surveillance of animal diseases, the laboratories also provide thousands of tests each year for diseases of public health significance, such as West Nile Virus and Lyme disease.**

The initial target diseases are Foot-and-Mouth Disease (FMD), Exotic Newcastle Disease (END), Highly Pathogenic Avian Influenza (AI), Classical Swine Fever (CSF), African Swine Fever (ASF), Rinderpest, Contagious Bovine Pleuropneumonia (CBPP), Lumpy Skin Disease (LSD) and Vesicular Stomatitis (VS). Laboratory staff has received training on methods using new procedures in molecular diagnostics, including real-time reverse-transcription polymerase chain reaction (rt-RT-PCR). Currently the facility is certified by the USDA to run rt-RT-PCR for AI, END, CSF, FMD and VS. The laboratory has started surveillance for END as part of the National Animal Health Laboratory Network (NAHLN) effort to detect foreign animal disease before outbreaks may pose serious problems to agriculture. This is a concerted effort between the Bureau of Animal Disease Control field staff, the Florida Diagnostic Laboratories and the USDA. The facility is also amongst the 12 laboratories in the nation that will provide surveillance for Bovine Spongiform Encephalopathy (BSE).



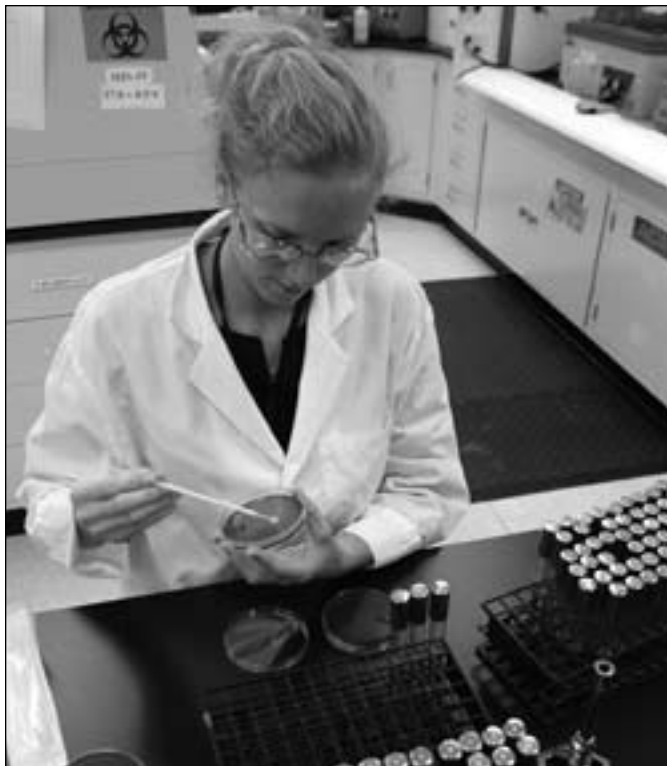
The West Nile Virus, a mosquito-borne disease, continued to be a problem this year. Several tests such as antigen capture ELISA, traditional RT-PCR, rt-RT-PCR, and viral isolation are performed to diagnose the disease. The Kissimmee Diagnostic Laboratory in conjunction with the Florida Department of Health monitors this disease as well as the traditional mosquito-borne diseases (arboviral diseases). Evaluating the spread of arboviral diseases in animals affords public health officials a barometer of impact to humans. New tests have allowed the laboratory to confirm the diagnosis of these diseases.

The Virology Section led the laboratory in the number of cases received, with 11,421 submissions. In addition, the laboratory performed over 46,608 tests for Equine Infectious Anemia (EIA). The Bacteriology Section continued development of various culturing and diagnostic methods to better differentiate between various pathogens and environmental contaminants. Pathology and Histology sections provided critical diagnostic services to various animal commodity groups. Immunohistochemistry is an approved test by the USDA utilized to conduct surveillance for the deer population in the state of Florida for diseases such as Chronic Wasting Disease. Other diseases that are diagnosed by this technique include Scrapie, Bovine Viral Diarrhea and West Nile Virus.

### **Live Oak Animal Disease Diagnostic Laboratory**

During fiscal year 2004-2005, the Live Oak Animal Disease Diagnostic Laboratory continued infrastructure, training, and testing improvements aimed to better serve Florida animal industries. These changes are intended to position the laboratory to meet changing client needs and anticipated future demand. Live Oak Laboratory provides the majority of USDA Program Testing for Florida and has a strong working relationship with USDA-Gainesville and both federal and state animal disease control field personnel.

For USDA-regulated program diseases brucellosis, Equine Infectious Anemia, pseudorabies, and John's Disease, Live Oak Laboratory received over 197,000 samples requiring multiple testing procedures for disease analysis. Results of these tests are reported to the State Veterinarian and responsible USDA Veterinary Medical Officers for ongoing animal disease control or eradication efforts mainly for cattle, horses and swine.



Live Oak Laboratory also performed over 23,000 non-program diagnostic procedures submitted by veterinary practitioners and the general public for clinical pathology, bacteriology, parasitology, serology and pathology. Poultry disease surveillance for the area broiler industry is a major component of sample submission, and testing is regularly conducted at Live Oak Laboratory to monitor birds for Salmonella, Avian Influenza and other disease entities critical to the poultry industry. Ongoing regular submissions of diseased backyard poultry yields surveillance samples that could provide early detection of bird diseases such as Exotic Newcastle's Disease (END) and High Pathogenic Avian Influenza (AI) that could be very detrimental to Florida's poultry industries. The Live Oak facility performed diagnostic services critical for sampling for Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV) cases in horses and surveillance sampling for Transmissible Spongiform Encephalopathy (TSE) diseases: BSE (Mad Cow); Scrapie (sheep and goats); and Chronic Wasting Disease (CWD) in wild and captive deer.

In addition to participation in state-federal disease programs, Live Oak Laboratory also assisted a number of interagency animal disease cooperative efforts. The Florida Fish and Wildlife Conservation Commission regularly submitted white-tailed deer for necropsy to determine cause



of disease condition or death as well as tissue sampling for Chronic Wasting Disease surveillance. Suwannee County Department of Health submitted rabies suspect animals from human exposure incidents for collection of samples that were forwarded to human diagnostic laboratories for rabies analysis. The laboratory staff worked closely with Bureau of Animal Disease Control inspectors and veterinarians on numerous individual cases as well as several ongoing disease programs. The District 2 Bureau of Animal Disease Control Office is located at the Live Oak Laboratory campus.

Facility enhancements occurred that will enable the Live Oak facility to participate in future laboratory testing in our changing world. Security improvements including fencing, access control, and alarm systems were completed. New instrumentation was added to accommodate fecal culturing for *Mycobacterium* to detect the causative agent for Johne's Disease. Improving laboratory facilities and instrumentation enables Live Oak Lab to assist in the early detection of monitored diseases and provide surveillance for the emergence of new animal disease threats. Live Oak staff attended specialized training to improve this capability for the state and increase laboratory diagnostic potential.

### **Feed, Seed and Fertilizer** **Feed**

Animal feeds are regulated using a network of seven Department-certified laboratories located throughout the U.S. Registrants, including ingredient suppliers, and feed and pet food manufacturers, are required to submit samples of their products for testing based upon the feed type and tonnage distributed in the state. Results from the certified laboratories are reported to the State Feed Laboratory, where compliance with

Chapter 580, F.S., is determined. Appropriate regulatory action is taken by the Department. In the 2004-2005 fiscal year, 679 feed companies participated in the program. A total of 2,233 samples were submitted and analyzed, with 91 violations in one or more categories. This represents an overall violation rate of 4.1 percent. Limited inspection, sampling and

laboratory evaluation oversight were conducted to verify compliance with the feed program. Seven consumer complaints were investigated, and 70 administrative fines totaling \$56,864 were collected for feed rule violations.

Bovine Spongiform Encephalopathy (BSE), widely referred to as "mad cow disease," continues to be the most critical feed-related issue. BSE is a progressive and fatal neurological disorder of cattle that is caused by infectious protein agents called prions. The disease was first identified in 1986 in the United Kingdom, but it was not detected in the United States until December 2003, when BSE was diagnosed in a single dairy cow in Washington State that had been imported from Canada. Subsequently, another cow, originating from Texas, was confirmed to have BSE in June 2005. In each case, swift government intervention prevented the infected cattle from entering the animal feed or human food markets.

Variant Creutzfeldt-Jakob disease, a chronic and fatal neurodegenerative disease that affects humans, is assumed to be linked to the consumption of beef products contaminated with the BSE agent. The U.S. Department of Health and Human Services and the U.S. Department of Agriculture have implemented measures to protect the public from health risks associated with BSE and to prevent the spread of the disease in U.S. cattle. The Department continues to pursue funding from additional sources to enhance existing surveillance and laboratory analysis programs related to BSE prevention.

To ensure that this disease does not develop in Florida, the Bureau of Compliance Monitoring extended its contract with the U.S. Food and Drug Administration (FDA) to conduct inspections of feed manufacturers, distributors, transporters, salvagers, and ruminant feeders. The focus

of these inspections is to prevent the establishment and amplification of BSE by ensuring that no prohibited mammalian protein products are used in feed for ruminant animals such as cows and sheep. A total of 200 BSE inspections were completed under the 2004 contract agreement, and 300 inspections are contracted for the 2005-2006 fiscal year. In fiscal year 2004-2005, the Feed Laboratory continued to analyze feed products for the presence of prohibited animal proteins using Polymerase Chain Reaction (PCR).

### Seed

The seed program is administered to ensure that Florida consumers have a source of high-quality seed for planting that meets or exceeds state and federal standards. Samples of agricultural, vegetable, and flower seeds are collected and analyzed for purity, germination, and compliance with Chapter 578, F.S. Commercial seed samples are tested on a fee basis to determine seed quality or accurate labeling information. During the 2004-2005 fiscal year, 1,978 Seed Dealer Licenses were issued and 3,039 official seed samples were collected. Laboratory personnel analyzed 3,136 official, special, and commercial seed samples, requiring 55,713 determinations. Based on analyses, it was determined that 15 percent of the official samples were mislabeled and 3.6 percent were illegal.

The seed program continues to observe increased usage of genetically enhanced seed in Florida agriculture. Samples of genetically enhanced seed may be subjected to additional analyses to ensure accurate labeling and protect Florida growers and consumers.

The Seed Investigation and Conciliation Council serves to assist farmers and seed dealers in determining the validity of complaints made by farmers against seed dealers and to recommend cost damages in those cases involving failure of the seed to produce as represented by the label on the seed package. This council received one new complaint this year, and two that were submitted during the previous fiscal year are currently pending.

The Division of Agricultural Environmental Services continues to play a vital role in controlling the spread of the invasive noxious weed, tropical soda apple. During this fiscal year, the seed laboratory identified 15 seed lots contaminated with this prohibited noxious weed seed. The result was the stop-sale of 93,000 pounds of agricultural

seed destined for planting in Florida and the Southeast. The Department continues to inform stakeholders about the severity of this formidable invasive noxious weed and educate them about how to control it.

### Fertilizer

The fertilizer program is one of the most innovative programs in the country. Official samples of commercial fertilizer and agricultural liming materials are collected and analyzed to ensure they meet the standards established in Chapter 576, F.S. This program serves as a model for new fertilizer analytical methodologies. The laboratory has implemented new methodologies to meet the evolving needs of the Florida consumer in the areas of nutrient availability in controlled-release fertilizers and micro-nutrient solubility. Twenty-five percent of samples that are analyzed contain slow-release fertilizers.

Issues such as heavy metals in fertilizers and nutrient Best Management Practices (BMPs) at fertilizer plants are also administered under this program. The Fertilizer Material Assessment Advisory Group scientifically evaluates all new fertilizer materials before they are permitted into the Florida marketplace and used in the state's delicate environment. No new materials were reviewed by this group during the fiscal year. The laboratory also analyzes commercial samples, on a fee basis, to determine compliance with label guarantees. There were 6,682 fertilizer samples analyzed during the fiscal year, of which 1,748 were found to be deficient in one or more plant nutrients. The laboratory performed 165,198 determinations on these samples. The overall deficiency rate was 26.2 percent. As a result of excessive deficiencies, 14 licensees were placed on probation, and penalties and fines totaling \$376,996.51 were levied, with \$50,447.41 of that total returned to consumers. There were 513 licenses issued for the sale of fertilizer in Florida. Additionally, 1,521 brands and grades of specialty fertilizers were approved for distribution. Nearly 2 million tons of mixed fertilizer and fertilizer materials were reported sold in the state.

The fertilizer laboratory performed 846 analyses for non-guaranteed trace metals in 523 fertilizer products. One sample exceeded the established tolerances for zinc. A total of 942 environmental water samples were analyzed for nutrient content for other divisions in the Department. There were 7,397 determinations performed on these samples.

## Best Management Practices

The Department, through the assistance of the Office of Agricultural Water Policy (OAWP), has produced a number of Best Management Practices (BMPs) for water conservation and water quality that offer agriculture certain protections under state law. BMPs are defined as a practice or combination of practices based on research, field-testing, and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural and urban discharges. When implemented, these practices are deemed to have a minimum individual or cumulative adverse impact to the water resources of the state. The process of developing BMPs includes the agricultural industry, Florida Department of Environmental Protection, water management districts, and environmental community stakeholders with assistance from OAWP technical writing staff. Growers who choose to implement BMPs receive a presumption of compliance with state water quality standards and are subsequently qualified to receive cost-share assistance. This year, staff finalized regional BMP manuals for Peace River and Caloosahatchee Citrus and an Ornamental Nursery manual for the entire South Florida Water Management District, as well as a statewide manual for Vegetable and Agronomic Crops.

## Regional Partnerships

The Suwannee River Partnership was formed in 1999 as a coalition of state, federal and regional agencies, local governments, and private industry representatives working together to reduce nitrate levels in the surface waters and groundwater. Initially, the partnership's efforts were limited to the Middle Suwannee River Basin. In 2003, the partnership expanded its work to include the Santa Fe River Basin. The partnership continues to assist dairy, poultry and row crop farmers with BMPs and Conservation Plans. During this fiscal year, staff helped sponsor a major CARES (County Alliance for Responsible

Environmental Stewardship) recognition event and has formulated a cost-share program for row crop farmers.

The Lake Okeechobee Protection Act was passed by the 2000 Legislature to establish a restoration and protection program for the lake. During this fiscal year, staff worked with the Florida Department of Environmental Protection (DEP) and the South Florida Water Management District (SFWMD) to implement the Lake Okeechobee Protection Plan that was submitted to the Legislature in 2004. The recommendations included in the plan are designed to reduce phosphorus loads and implement long-term solutions based upon the lake's phosphorus total maximum daily load. OAWP in cooperation with DEP, SFWMD and other stakeholders is working closely with dairy and beef cattle operations to improve nutrient management and surface water management to reduce phosphorus movement in storm-water runoff.

## State and Federal Cost-Share Programs

In order to assist agricultural producers in the implementation of BMPs, the OAWP has developed working partnerships with various state and federal agencies. Through these partnerships, cost-share reimbursement monies are available for growers to implement BMPs that are otherwise cost prohibitive. Currently, the OAWP has active agreements with USDA-NRCS, St. Johns River Water Management District, Suwannee River Water Management District,





Southwest Florida Water Management District, South Florida Water Management District, several of the state's Soil and Water Conservation Districts, and most of the state's Resource Conservation and Development Councils in order to administer these cost-share programs. During the 2004-2005 fiscal year, staff has worked to expand BMP cost-share programs, targeting many areas in South Florida, namely, the C-139 basin and Caloosahatchee basins, and nurseries within the boundaries of the SFWMD. Moreover, with the passage of SB 444, there will be a significant increase in cost-share funding.

### **Field Staff and Technical Services**

OAWP field staff are co-located with the five Water Management District offices throughout the state and help growers with the implementation of BMPs by providing technical assistance with state and federal programs, conservation planning, and cost-share application information. Field staff also play a vital role in ensuring that BMPs are implemented as designed and perform critical follow-up inspections at growers' farm fields. During this year, field staff have assumed more management oversight of contracts that OAWP administers in support of BMP development and cost-share.

### **Soil and Water Conservation Council**

The Soil and Water Conservation Council is a soil and water issues advisory body to the Commissioner of Agriculture. In addition to key agricultural producers, the council now includes representatives from the five Water Management Districts, the Florida Department of Environmental Protection, the University of Florida's Institute of Food and Agricultural Sciences, USDA-NRCS, the Florida Legislature, and representatives from the environmental community. The council's primary purpose is to make water policy recommendations to the Commissioner of Agriculture and to assist the Department with oversight of its key water resources programs. During this year, the council met twice with the Commissioner in attendance and addressed key issues including growth management and its impact on agriculture and water supply development, and expanding the use of controlled release fertilizers as an element of water resource protection.

### **Mobile Irrigation Laboratories**

Recognizing the invaluable service that the network of Mobile Irrigation Laboratories (MILs) provides to the state's agricultural industry, the OAWP continues to

support various programs associated with the MILs and has contributed funding in support of these services. The MIL programs are designed to provide assistance to the USDA-NRCS field staff as well as OAWP field personnel with site-specific irrigation testing, diagnostics, irrigation scheduling, and recommendations for system upgrades consistent with conservation planning and BMP implementation. During the 2004-2005 fiscal year, the Department received increased funding from the Legislature to expand the MIL network. A new MIL was started in Northwest Florida to target row crop production areas and critical springs recharge basins. OAWP, working closely with USDA-NRCS, is transitioning into the role of statewide MIL coordination in order to improve service and reporting consistency of this important conservation program.

### **Florida's Agricultural Water Policy**

Staff continues to work to implement the nine key policies enumerated in Commissioner Bronson's "Florida's Agricultural Water Policy" document which was released in July 2003. The development of this document utilized the knowledge and experience of nearly 100 leaders in the agricultural, environmental, urban and regulatory fields. The document resides on the OAWP's web site — [www.floridaagwaterpolicy.com](http://www.floridaagwaterpolicy.com) — and outlines statewide agricultural issues associated with the supply, use, conservation and allocation of the state's limited freshwater resources.

### **Ombudsman Assistance**

OAWP staff provide third-party arbitration for growers unduly affected by onerous or cumbersome regulations. In order to provide this service, staff produce written reports with scientific details and expert technical opinion in order to help the implementing agency adjudicate a fair outcome as to whether an agricultural activity is exempt from permitting by statute.

### **Agricultural Law Enforcement**

The Office of Agricultural Law Enforcement (OALE) consists of three bureaus and an administrative staff dedicated to the protection of Florida's agriculture and food supply. The office supports all regulatory and law enforcement programs of the divisions of the Department as well as engages in cooperative partnerships with many federal, state and local law enforcement agencies throughout the state. It works to safeguard the agricultural industry from the introduction of devastating diseases and pests,

to secure the state's borders, and to enforce criminal and civil violations occurring within state forests, criminal acts against consumers, and those crimes involving agriculture, horticulture and aquaculture.



During this past fiscal year, the OALE accepted the challenge of obtaining accreditation through the Commission for Florida Law Enforcement Accreditation. By achieving and maintaining the accreditation process, the office will bring all of its operations in compliance with accepted best practices of the law enforcement community.

### **Bureau of Uniformed Services Inspection Stations**

The Office of Agricultural Law Enforcement's inspection stations are Florida's first line of defense in the protection of its agriculture. The Department operates 22 agricultural inspection stations located on all paved highways crossing the natural boundary of the Suwannee and St. Marys rivers. In addition, a 23rd inspection station is under construction on Interstate 10 at the Florida-Alabama border. Agricultural vehicle inspections are conducted at each location around the clock, 365 days a year, by 218 law enforcement personnel and a support staff of five individuals.

These officers support and supplement all of the Department's regulatory and law enforcement programs by conducting inspections of highway shipments of agricultural, horticultural, aquacultural and livestock commodities. These regulations and programs ensure compliance with Federal-State Marketing Agreements as

well as laws, rules and regulations enacted to make certain the public receives quality food products. Programs are also designed to prevent, control and eradicate specific plant and animal pests and diseases that could economically devastate segments of Florida's agricultural industry.

The state's border security is one of the four cornerstones in Florida's domestic security initiative. The increased vigilance of the Department's law enforcement officers has strengthened Florida's surface border protection. The implementation of the plan has resulted in the following:

- ▼ Performing interdictions/inspections of all commercial traffic and rental trucks entering and exiting the state.
- ▼ Tracking vehicles transporting dangerous cargo entering all inspection stations.
- ▼ Utilizing real-time imaging of documents to track movement of agricultural commodities and livestock entering and exiting the state of Florida.
- ▼ Maintaining a 24-hour toll-free hotline to report suspicious inbound or outbound commercial vehicles, and other agri-terrorism issues.

Increasing staffing at all inspection stations post-September 11, 2001, resulted in the identification of over 396 illegal aliens who attempted entry through concealed means as well as the recovery of \$9.2 million in contraband including narcotics, currency and stolen property.

To facilitate movement of commercial highway traffic, the Office of Agricultural Law Enforcement continues a public/private partnership with the Florida Department of Transportation and private enterprise, to provide commercial carriers with the PrePass<sup>TM</sup> electronic identifier which may allow some vehicles to bypass inspection stations, reducing station traffic and allowing Department officers to concentrate their efforts on specific carriers of agricultural, horticultural, aquacultural and livestock commodities. Currently, electronic Pre-Pass<sup>TM</sup> is located at all interstate inspection stations.

During fiscal year 2004-2005, Department officers conducted 10,359,892 vehicle inspections that detected 6,321 violations which resulted in 1,005 arrests, 3,719 warnings, 1,491 administrative actions, and the apprehension of 111 illegal aliens.

During times of natural disasters, Department officers function as members of Florida's Mutual Aid Response Team, participating in relief efforts to ensure that devastated areas receive adequate law enforcement protection. Department officers were involved in relief efforts after each of the five storms in 2004. Personnel completed various missions including search and rescue, security at food distributions points, routine patrols in relief of local law enforcement authorities, traffic control and humanitarian missions. Department personnel were deployed a total of 8,349 hours during the four hurricanes and one tropical storm.

The Department also cooperates with federal, state and local governmental agencies on projects, both criminal and non-criminal, which either improve the efficiency of agricultural programs or generate additional revenues to the state without increasing costs to Florida's citizens.

The Department officers collected and provided the Florida Department of Revenue with 83,627 bills of lading pertaining to certain types of cargo entering Florida. These efforts resulted in an additional \$8,797,841 in sales and use taxes being collected by the state during fiscal year 2004-2005 that would have otherwise gone uncollected. This cooperative effort not only greatly enhances the state's ability to collect sales and use taxes, but also precludes out-of-state contractors and businesses from gaining an unfair competitive advantage over Florida entrepreneurs. Since the inception of the program in April 1993, this cooperative effort has resulted in the detection and collection of over \$130 million in otherwise undetected sales and use taxes.

### **Bureau of Investigative Services**

The Department's Bureau of Investigative Services operates 18 field offices throughout the state staffed by 43 sworn personnel and four non-sworn support staff who are responsible for conducting criminal investigations



and patrolling state lands managed by the Department. By working with consumers, the agricultural industry and other state and local law enforcement agencies, the Department assists in the statewide efforts to reduce the number of consumer- and agriculture-related crimes.

The bureau's responsibilities include, but are not limited to, the following:

- ▼ Investigation of matters over which the Department has jurisdiction and incidents occurring on property owned, managed or controlled by the Department of Agriculture and Consumer Services.
- ▼ Enforcement of criminal and civil violations occurring within state forests or any crimes involving agriculture, horticulture, aquaculture or citrus products.
- ▼ Enforcement of environmental laws such as illegal dumping, and enforcement of laws governing outdoor open burning. All law enforcement personnel in the bureau are trained in fire and arson investigations and investigate fires occurring in wildland and urban areas.
- ▼ Enforcement of laws governing consumer issues including illegal telemarketing operations, sale of business opportunities, solicitations of contributions, sellers of travel, motor vehicle repair fraud, health studios, dance studios, pawnshops, moving and storage companies and price-gouging.

▼ Developing and processing criminal intelligence information, conducting crime analysis of reported crimes, conducting research of persons suspected of committing crimes, and conducting background investigations of prospective employees of the agency.

▼ Providing protective operation services for the Commissioner of Agriculture and other dignitaries as needed.

The Bureau of Investigative Services provides law enforcement services on approximately one million acres of land owned, controlled or managed by the Department throughout Florida. The bureau strives to reduce criminal activity on state lands by a proactive patrol presence, seeking voluntary compliance in the enforcement of laws and rules designed to protect the environment. The following chart identifies the types of compliance/safety checks conducted and the types of complaints/responses handled by officers on patrol:

The bureau is involved in issues relating to domestic security and actively participates in all seven regional Domestic Security Task Forces statewide, as a member of a response team under the direction of the Department of Environmental Protection for the investigation of bio-hazard incidents statewide. The bureau continues to conduct threat assessments of regulated entities affiliated with fertilizer, pesticide, food, petroleum production and distribution points, as well as investigating theft, shrinkage and suspicious activities regarding these materials.

During fiscal year 2004-2005, the bureau began to make a significant change in operations, moving to mirror the geographic boundaries of the seven FDLE and Regional Domestic Security Task Force Regions. At this time, the bureau has adopted plans for redistricting from six regions of operation to seven regions.

State Land Activities	CARL Officers	Bureau of Investigative Services
Animal Health	462	868
Boating Accidents	0	0
Boating / Water Sports	58	686
Camping / Day Uses Checks	8,691	21,405
Disturbance / Nuisance	15	250
Drugs / Alcohol	115	457
Environmental	151	19
Hunting / Fishing	3,182	575
MV Accidents	6	3
Personal Injury	5	2
Property Damage	55	7
Search / Rescue	3	2
Theft / Vandalism	47	25
Traffic	1,097	71
Vehicle / Motorcycle	4,068	955
Wildlife	72	9
Other	65	13
Total	18,092	25,347



During fiscal year 2004-2005, the bureau initiated a total of 1,276 investigations, with a closure rate of 83 percent. During this reporting period the state experienced extreme rainfall due to one tropical storm and four hurricanes. As a result of these storms and increased rain activity since, ground moisture was such that fire activity was virtually nonexistent. Even without the fire activity, the bureau saw a 72 percent increase in the number of investigations initiated, primarily due to a combined proactive effort between the Office of Agricultural Law Enforcement and Division of Consumer Services.

The number of investigations initiated, as reported, do not include investigations conducted by CARL (Conservation And Recreation Lands) officers on state lands. During this reporting period, CARL officers initiated an additional 511 investigations specifically related to state lands activity. A total of 271 criminal charges were filed, 276 administrative and civil actions were taken, and 394 written warnings were issued. The bureau investigated 265 fires resulting in five arrests for felony offenses related to arson/intentional type fires, and 83 arrests for misdemeanor offenses related to careless or reckless type acts and non-compliance of regulations.

Bureau of Investigative Services personnel worked a total of 12,700.5 hours in storm relief efforts during the tropical storm and hurricanes in 2004. During this period of emergency, all sworn personnel were deployed for various assignments. Assignments included staffing several Emergency Operations Centers, urban search and rescue, humanitarian relief, security assignments, field command positions, patrol functions, and price-gouging investigations.

The bureau provided security services to the Florida State Fair during February 2005 to monitor and protect the Administrative Complex which houses the bank and count rooms. The bureau also provided protective services to the Commissioner of Agriculture and other select dignitaries during their visit to the fair. A total of 1,550 hours were devoted to these details.

In January 2005, the Office of Agricultural Law Enforcement officially became the pass-through agency for the Outdoor Marijuana Eradication Program overseen by the Drug Enforcement Administration. Bureau personnel are responsible for attending meetings and conferences, coordinating training, receiving data

for input into multiple databases, and coordinating payment of reimbursement funds to qualified agencies. Reimbursement funds are paid to participating agencies for marijuana plants pulled. To date, the bureau has logged 21,944 plants eradicated, and has devoted over 350 staff hours to coordinate the program.

The Agricultural Crime Technology Information and Operations Network (ACTION) program continues to grow. As of June 30, 2005, Hardee, Sumter, Brevard, Pasco, Orange and Palm Beach County sheriffs' offices are participating in the program, providing reports for data entry. To date, over 100 OALE reports relating to agriculture crimes have been designated for entry into the ACTION program.

The bureau is designated to receive, monitor and disperse information relating to intelligence issues for the agency. The bureau works with the Department's Office of Bio and Food Security Preparedness, as well as federal, state and local agencies on issues of mutual concern and maintains data on ammonium nitrate and other products of concern entering this state, to include point of origin to point of destination.

### **Bureau of Special Operations**

The Bureau of Special Operations supports the Department's mission of protecting Florida's agriculture by supporting the Office of Agricultural Law Enforcement in four specialized areas of operations. These highly specialized fields provide special operations and equipment to the core functions, increasing production and efficiency of the law enforcement mission within the Department. The four areas of operations are:

#### **Mobile Gamma-Ray**

The Vehicle and Cargo Inspection System (VACIS) program consists of four mobile gamma-ray units operated by sworn law enforcement personnel. These units allow the officers to scan the entire contents of a tractor-trailer unit much the same way an airport screening process works. The cargo can be visually inspected in a few seconds revealing the contents and any anomalies. During fiscal year 2004-2005, the VACIS teams completed 17,202 such scans and processed 11 criminal violations. They processed 49 administrative violations with 35 resulting in arrests, and issued an additional 15 notices to appear. In addition to protecting Florida's agriculture, these units also serve in the homeland security effort by protecting Florida borders

and working high- threat special events such as the G-8 Summit and the Super Bowl event in Jacksonville. During these events the OALE provided a critical function on a worldwide stage.

### **K-9 Teams**

The K-9 team serves the Department by supporting the enforcement of agriculture marketing orders. These highly trained animals and their handlers examine commercial traffic and are trained to alert on citrus, tomato, avocado, pork and beef products. Eight teams are currently in operation and completed 5,262 inspections during the 2004-2005 fiscal year, with 33 violations found during this period and 33 commodities seized.

### **Training**

The Training Section provided sworn and civilian personnel advanced and continuing education by providing our officers with the latest tools and techniques available in today's law enforcement community. Officers receive both general and advanced law enforcement training, as well as training in the unique aspects of protecting Florida's agriculture and consumers. During fiscal year 2004-2005, the section delivered over 8,832 contact training hours to 230 law enforcement officers. Joint training was held with state and federal law enforcement as well as the agricultural industry. Law enforcement training is held in partnership with the Pat Thomas Law Enforcement Training Academy in Havana, Florida. In addition to the academy environment, the training section also utilizes distance training via training bulletins and internet-based training.

### **Accreditation**

The Office of Agricultural Law Enforcement has accepted the challenge of obtaining accreditation through the Commission for Florida Law Enforcement Accreditation. By achieving and maintaining accreditation, OALE will bring all of its operations into compliance with accepted best practices of the law enforcement community. This process involves the complete rewriting and implementation of all policies and procedures, as well as improving many of the normal operational practices. This process is a multi-year commitment for the initial accreditation. The accreditation process has resulted in an improvement in how OALE operates resulting in more efficiency and effectiveness in protecting Florida's agriculture. As of this report, the OALE is over 32 percent compliant with accreditation standards.

## **Plant Protection, Inspection and Certification**

The Department's Division of Plant Industry is the plant protection arm of the Department that works to detect, intercept, control and eradicate plant and honeybee pests that threaten Florida's native plant and agricultural resources. The division maintains these functions through five bureaus:

- ▼ Citrus Budwood Registration
- ▼ Entomology, Nematology and Plant Pathology
- ▼ Methods Development and Biological Control
- ▼ Plant and Apiary Inspection
- ▼ Pest Eradication and Control

### **Citrus Canker Eradication Program**

The Department is actively fighting Asian strain bacterial citrus canker. This plant disease has been found in 22 Florida counties since 1995: Brevard, Broward, Charlotte, Collier, De Soto, Hardee, Hendry, Highlands, Hillsborough, Indian River, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Polk, St. Lucie and Sarasota.

The Citrus Canker Eradication Program (CCEP) involves the survey and inspection of properties and commercial groves for the detection of citrus canker, and the control and removal of infected and exposed citrus trees. Once suspect trees are confirmed positive by on-site plant pathologists or lab testing, the positive trees are removed in compliance with Chapter 581.184, F.S. This statute states all positive and exposed trees within 1,900 feet of an infected tree must be destroyed. This method is based on a two-year published epidemiological study in Miami-Dade and Broward counties.

On August 13, 2004, there were no known citrus canker infections in the state of Florida other than in Miami-Dade, Broward, and Palm Beach counties. During the period August 12, 2004 through September 26, 2004, Florida experienced three named hurricanes that crisscrossed the state. In the ensuing months, citrus canker infection was detected in both residential and commercial citrus-growing areas in 15 Florida counties.

Significant residential infection was found in: the Orlando area of Orange and Osceola counties; Cape Coral and

Pine Island in Lee County; Charlotte County; the Treasure Coast area of Indian River, Brevard and St. Lucie counties; Sarasota County; and the Ruskin/Sun City area of Hillsborough County.

In commercial growing areas, citrus canker was detected in areas where canker had previously been found as well as in new areas on the Treasure Coast in Indian River, St. Lucie, Martin and Palm Beach counties; the Heartland area in Highlands, Desoto, Hardee, Polk and Okeechobee counties; Southwest Florida in Lee, Collier, Charlotte and Hendry counties; and in Hillsborough and Orange counties.

In both residential and commercial sites, infection was spread by the hurricanes from a few undetected positive trees existing prior to the storms.

Strategic operations refocused some residential control efforts from South Florida to other areas of the state. A portion of personnel from the South Florida CCEP Program were shifted to Central Florida, the Treasure Coast and Southwest Florida. Personnel from other divisions within the Department, including Animal Industry, Forestry and Fruit and Vegetables, were called on to assist in the eradication efforts.

### **Quarantine Areas**

New quarantine areas have been established and others have been expanded, reduced, or removed. As of June 30, 2005, there were 1,903.62 square miles under citrus canker quarantine throughout the state – about 1,482.65 square miles in Miami-Dade, Broward, Palm Beach, and Monroe, and another 420.97 square miles in 10 other counties: Charlotte, Collier, Desoto, Hendry, Highlands, Hillsborough, Lee, Orange, St. Lucie and Sarasota. During the 2004-2005 fiscal year, 41.25 square miles of quarantine area were removed.

### **Legal Update**

Since the Florida Supreme Court upheld the 4th District Court of Appeals (DCA) ruling supporting the science and search warrants last fiscal year, there have been no additional legal impediments to the program.

### **Patchen Case**

The Supreme Court issued a ruling in April 2005 on the citrus canker compensation case that had been before them for two years. This ruling leaves intact the court's

previous opinion that upheld the constitutionality of the Citrus Canker Eradication Program. The Florida Supreme Court ruling also upholds Section 581.1845, F.S., which was added to the statute to provide compensation to eligible homeowners. The Supreme Court ruling overturned a decision from the 3rd District Court of Appeals that indicated residential citrus trees within 1,900 feet of infected ones had no value. The ruling remanded the case back to a lower tribunal for further determination of value.

### **CCEP Program Statistics**

<b>Total Trees Removed .....</b>	<b>2004-2005 FY</b>
Commercial .....	1,180,852
Residential .....	142,749

### **Florida Statutes**

During fiscal year 2004-2005, the Florida Legislature re-enacted Chapter 581.184, F.S. This statute sets up the 1,900-foot law and other guidelines for the citrus canker eradication program including immediate final orders, development of quarantine areas, and decontamination rules. This statute was set to expire on July 1, 2005.

### **Public Information**

In addition to standard public information activities – such as distribution of press releases, advertisements, web site development and maintenance of the canker help lines – numerous other outreach and education programs continue. These include conducting public availability sessions in areas with new CCEP control programs. Door-to-door campaigns also have been conducted in counties with active control programs to encourage the signing of waivers to inspect and cut infected and exposed trees. To expedite the South Florida eradication effort, 60 state public liaison officers have been added and are contacting residents to explain the program, seek homeowner permission to survey properties, and, if necessary, remove infected or exposed trees. A total of 33,479 waivers were collected from homeowners this fiscal year. Since the hurricanes of 2004, the public liaison officers have been providing support in new areas such as Orlando and Osceola and St. Lucie counties.

Because of the movement of hurricanes through commercial growing regions, the public information office has assisted by conducting additional educational workshops for residents in those areas. The workshops have emphasized the importance of homeowners being

vigilant regarding decontamination of workers who come onto their properties and come into contact with citrus. Community liaison officers continue to visit homeowners throughout the state in effort to educate and communicate the importance of eradicating canker through cooperation with the program.

### **Farm Worker/Harvester Education and Decontamination Training Program**

The Farm Worker/Harvester Decontamination and Education Training program was developed in conjunction with the U.S. Department of Agriculture (USDA), and the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) to educate and reinforce decontamination practices to help stop the spread of citrus canker. The training program was designed to reach the thousands of farm workers who work in citrus groves. Training materials, videos/DVDs and flip charts were developed to assist certified trainers in conducting training sessions in a variety of training venues (e.g., tailgate training sessions, classroom settings, small and large group gatherings). This program has trained over 1,600 grove caretakers and crew chiefs this fiscal year. The program will continue because it is now a mandatory component of the grove compliance agreement.

### **CCEP Decontamination Training Video**

A 10-minute training tape was produced on proper decontamination procedures for lawn maintenance workers and other workers who might come into contact with citrus.

### **Grower Self-Survey Training**

Outbreaks of citrus canker are continuing to be found in Florida's commercial citrus groves and nurseries in addition to residential areas throughout the state. While the state and federal agencies are working hard to eradicate these outbreaks, resources are limited and other mechanisms for early detection of the disease are needed. A program was developed and implemented to train citrus growers and nursery operators to conduct additional surveys. The University of Florida's Institute of Food and Agricultural Sciences, in cooperation with the Florida Department of Agriculture and Consumer Services and U.S. Department of Agriculture, has trained over 2,000 citrus growers and nursery operators on how to identify citrus canker; how, and when, to properly survey for the disease; and how to report suspected canker finds. Since the program was

implemented in July 2005, several new canker finds have been identified by growers, thereby expediting the removal of infected and exposed citrus trees.

### **Control and Survey Statewide Program Commercial Citrus Groves**

During the 2004-2005 fiscal year, citrus canker was detected on 104 sites in commercial citrus groves in 15 counties. These detections impacted 141 individual citrus grove owners statewide. As of June 30, 2004, 3,675,359 trees or 29,920 net tree acres, had been destroyed or scheduled to be destroyed. Completed control actions amounted to 1,154,773 trees and 8,809 net tree acres. Of those acres controlled, 54 percent were Valencias, 32 percent were early mids, 12 percent were grapefruit, and the remaining 2 percent were specialty fruit. Tree acres in the process of being pushed and burned, and acres being processed for destruction, amounted to 21,111 acres.

During this fiscal year, 761,753 acres of commercial citrus were surveyed, as compared to 1,035,179 acres during the previous year. This reduction can be attributed to survey personnel not being able to access citrus groves after the hurricanes, as well as survey personnel being focused on survey in and around positive groves.

### **Residential Citrus**

Residential citrus canker detections were significant in nine statewide counties in fiscal year 2004-2005. As noted previously, Orange and Osceola counties experienced widespread infection. In this Central Florida area, 1,129 positive trees were detected on 560 properties, resulting in the destruction of 38,331 trees on 11,826 residential properties within the 1,900-foot arcs.

In the southwest area of the state in Lee and Charlotte counties, 1,668 positive trees on 841 residential properties were detected, resulting in the destruction of 25,780 exposed trees on 8,977 properties within the exposure arcs.

On the west coast in Hillsborough and Sarasota counties, 158 positive trees were detected on 80 properties, resulting in the destruction of 2,355 exposed trees on 991 properties.

In the Treasure Coast counties of Indian River, St. Lucie and Brevard, 126 positive trees were detected on 97 properties, resulting in the control of 9,989 trees on 3,991 exposed properties.



## Southeast Florida Operations

There were 145 new sections found positive with citrus canker, a total of 9,163 residential properties with 14,471 positive and 9,508 exposed trees. For the 2004-2005 fiscal year, 15,002 bacterial streaming tests were conducted by the Plant Pathology Section; all the canker samples were dried and are stored in the Herbarium.

The residential survey team inspected 228,578 properties and survey mapped 77,249 properties, the majority of which were in Palm Beach County. Residential inspections were also conducted in Broward, Miami-Dade and Monroe counties this year, resulting in the findings of 172,166 citrus trees through the area.

A total of 26,079 grove trees were destroyed on 187 acres, by voluntary request. There were 4,411 commercial acres inspected for citrus canker this year in southeast Florida.

Control action on 26,678 positive and exposed properties resulted in 66,294 cut trees.

## Regulatory

The regulatory department inspects groves, processing plants, packinghouses, retail, lawn/landscape, and residential areas to ensure proper decontamination procedures are in place. The Department issues limited permits for the movement of fruit to processing and packing facilities, and issues all documents pertinent to the program. Compliance agreements must be renewed annually. These documents outline required regulations that companies and individuals must follow to operate in citrus-producing areas and in quarantine areas. Violations are issued to anyone who is found not to be in compliance.

During this period, regulatory performed 32,888 inspections. During the course of these inspections, 1,721 compliance agreements, 251 reports of violations, 2,525 limited permits, and 19,472 miscellaneous permits and documents were issued.

## Africanized Honeybees

It has become clear that an Africanized honeybee (AHB) population has become established and will continue to be an issue in Florida due to its numerous pathways into the state and the lack of effective eradication products or techniques. The Department, in cooperation with other agricultural stakeholders, is developing the tools to protect the beekeeping industry and educate the public on how to

learn to avoid encounters with this potentially dangerous insect. At some point, the aggressive behavior of these bees will become more common. Interaction between AHBs, people and animals will likely happen.

Florida has been surveying for the AHB for the last decade and has established the country's first AHB detection program that is jointly operated by the Florida Department of Agriculture and Consumer Services and the U.S. Department of Agriculture. The program involves placing bait hives



in ports, and educating ships' crews and dockworkers to identify and report suspicious swarms. Today, nearly 500 bait hives are in place throughout the state, primarily in port areas, along Interstate 10 and on the Florida-Alabama border. The bait hives are checked on a three-week cycle based on the reproduction habits of the AHB.

Pathways for introduction of the AHB into Florida are numerous. AHB swarms have been intercepted 30 times in the past 22 years in Florida. The majority have come off ships from Guatemala. Since 2002, when the first AHBs were detected in the Tampa Bay area, 653 samples have been taken with 59 positive for AHB genetics.

Over the last several years, numerous attacks on humans and animals have been reported in California, Arizona, New Mexico and Texas. Emergency response agencies in these states have implemented first responder training programs as well as public education efforts. While there have been no attacks on humans reported in Florida, a horse in LaBelle was attacked in May 2005.

### Citrus Budwood Registration

The Citrus Budwood Protection Program protects the citrus industry by regulating all citrus propagating material used by Florida growers. The Bureau of Citrus Budwood Registration supplies and tests the budwood that is the foundation of Florida's healthy commercial citrus industry. High-quality propagating sources are established in bureau screen-protected greenhouses and supply budwood to nurserymen who benefit by having clean budwood to produce quality trees. It is essential to have clean trees for a productive citrus industry, as numerous pathogens can be bud transmitted and distributed in nursery stock to area groves.

This year was very challenging, with three hurricanes whose paths crossed bureau foundation facilities. Each storm caused damage to the facilities, including destroying two screenhouses and one greenhouse. Other bureau greenhouses suffered roof and structural damage but were able to be repaired. Damage to barns, pump houses and other structures compounds the difficulty in making quick repairs. As of the end of the fiscal year, much of the damage had been repaired and estimates had been received to make other repairs. The total allocated to date for hurricane repairs has been \$194,925.

The loss of the 29-year-old trees in the original Dundee screenhouse is a more long-term misfortune. These large trees provided approximately 50 percent of the Dundee/Winter Haven foundation budwood supply in the previous fiscal year. Screenhouse rebuilding is under way with new similarly sized structures, but budwood production will take several years to reach previous levels. On the bright side, replanting the houses will afford the opportunity to plant with newer clonal selections of varieties that are in high demand.

Florida's citrus nursery industry is used to turbulent years dealing with the changing economics of growing citrus, world competition, and the threat of freezes and diseases, but this year has been one of the worst. While the 2004 hurricane season brought major destruction, a far worse enemy threatened nurserymen's livelihood as citrus canker outbreaks around the state did not discriminate between groves and nurseries. Three citrus nurseries were identified as having canker-infected stock in May 2005. A fourth was identified in June. The situation raised nurserymen's concerns, as canker finds in a citrus nursery mean destruction. Even having a nursery in a quarantine zone stops all cash flow for maintaining the trees.

On the global front, Huanglongbing, or citrus greening, was reported in Brazil in 2004. Citrus greening is one of the most devastating diseases of citrus in the world and keeping it out of Florida should be the highest priority. The vector, the Asian citrus psyllid, was found in Florida in 1998.

The threat of pathogens in illegal budwood was emphasized this fiscal year as officials with the U.S. Department of Homeland Security intercepted two shipments of smuggled budwood into California from Japan. The boxes were manifested as "candy and chocolates" and "books and chocolates." Some of the budwood was positive for citrus canker and may have harbored other destructive pathogens. All Florida growers should be aware that it is illegal to bring any citrus plant parts into Florida from out of state.

Nursery propagations took a huge hit this year, being off nearly 46 percent from last year's level. The loss of citrus land to development and the reluctance of some growers to replant lost trees, caused nursery inventory to stagnate. Nursery propagations were at the lowest level in recent years with only 2.1 million trees budded. Sweet oranges had a significant reduction in numbers being propagated from the previous year. This fiscal year saw 1.8 million fewer sweet orange trees produced. This represents a 57 percent decline for round oranges. Hamlins were the most widely propagated variety with 558,282 trees, about 40 percent of the sweet oranges produced. Valencias were the second most popular variety with 511,319 trees or about 37 percent of the oranges. Valencia and Hamlin are the two most popularly planted citrus trees in the state. Midsweet and Earlygold sweet oranges were the sixth and seventh most popular varieties, respectively.

The bright spot of nursery production has been an increasing number of red grapefruit being propagated the past several years. Grapefruit has been a good nursery product for the past five years. Red grapefruit varieties make up four of the top 10 varieties being produced with Ray Ruby being the number three variety produced. Rio Red was the fourth most popular variety propagated, followed by Flame grapefruit in fifth place and Ruby Red in eighth place. After years of grapefruit over-production and low prices, there has been a rebound in fruit prices attributed to the loss of grove land and tree losses due to tristeza and the hurricanes. As a result, grapefruit tree demand has notably risen. Because of the increase in grapefruit orders, budwood

supplies have been short, as inventories of pathogen-tested budwood sources were reduced in the past decade when grapefruit prices were low.

The most popular mandarin variety, in ninth place overall, was Murcott. Minneola tangelo was in 15th place, making it the next most popular mandarin.

As commercial citrus acreage shrinks, the real-estate boom has created a good market for dooryard citrus trees. The most popular dooryard citrus varieties were Meyer lemon and Meiwa and Nagami kumquats. The 2004-2005 fiscal year was the first year requiring all dooryard citrus nurseries to report propagations on Bud Cutting Reports.

Swingle citrumelo has been the most popular rootstock in Florida for 17 years. Kuharske citrange and Carrizo citrange are the second and third leading rootstocks. Cleopatra mandarin, X-639, Volkamer lemon, and Sun Chu Sha followed in usage.

The bureau distributed 145,025 budeyes from foundation trees this year. Ninety-five different varieties were distributed. Budwood bureau personnel made 109 budwood cuttings to supply 53 different customers. Budwood was cut 59 days of the year. Florida citrus nurserymen received 96 percent of the budwood cut, while 5,153 budeyes were sold to non-participants or used for research. One foreign country received 500 budeyes, and two other states received 120 budeyes from program foundation trees.

The number of scion grove trees decreased this year due to a combination of factors including hurricanes, land development and disease.

Florida citrus nurseries rely on scion trees to supply the majority of the propagating material used to produce nursery trees. Scion trees supplied 1.1 million budeyes this year, representing 51 percent of the budwood used. The average scion tree supplied 2,074 budeyes during the year. The average amount cut per cutting was 1,261 eyes.

Graft-transmissible pathogen detection in Florida's sources of propagating material is a critical component in protecting the citrus industry from endemic and exotic diseases.

The bureau performed 2,579 tests to determine citrus pathogens in budwood source trees this year, and research continued identifying tristeza stem-pitting in commercial groves.

**The bright spot of nursery production has been an increasing number of red grapefruit being propagated the past several years. Red grapefruit varieties make up four of the top 10 varieties being produced.**

### **Plant and Apiary Inspection**

At the end of fiscal year 2004-2005, there were 7,876 nurseries (9,621 block locations) and 3,960 nursery stock dealers (7,376 outlet locations) registered with the Department. Inspectors made 18,877 inspections of nursery and stock dealer establishments. As a result of these inspections, 4,035,990 plants were quarantined. There were 17,512 state and federal certificates issued for shipments of plants and plant products exported from Florida.

Department personnel inspected 6,464 shipments of plants and plant products imported into Florida from other states and countries, including 2,023 shipments of nursery stock. These inspections resulted in 237 (117 for nursery stock) regulatory actions for plant pests of quarantine significance. A total of 7,113 soil and root samples were collected and analyzed specifically for burrowing nematodes as required by the Burrowing Nematode Certification Program.

Department personnel tended 166 gypsy moth traps in North Florida. Other seasonal traps included seven cotton boll weevil traps. Department and USDA personnel tended more than 29,609 traps for exotic fruit fly detection.

### **Citrus Canker Nursery Inspection Program**

As of June 30, 2005, there were 1,146 nursery blocks and stock dealer outlets which were inspected on a 60-day cycle for citrus inventory. This compares to a total of 1,272 nursery blocks and stock dealer outlets inspected on a 60-day cycle as of June 30, 2004. Ninety-two locations were identified as commercial citrus nursery. This year there were four commercial citrus nurseries identified as positive for citrus canker. Because of this, they are inspected on a 30-day cycle.

### Pink Hibiscus Mealybug

Between July 1, 2004, and June 30, 2005, Department personnel witnessed the destructions of 91,184 plants as a result of Pink Hibiscus Mealybug (PHM). In July 2002, the Department, in cooperation with USDA, initiated the Pink Hibiscus Mealybug Biological Control Program. At the present time, PHM has been detected in Broward, Brevard, Collier, Hillsborough, Indian River, Lee, Martin, Miami-Dade, Monroe, Orange, Palm Beach, Pinellas and St. Lucie counties. During fiscal year 2004-2005, plant inspection personnel spent 6,091 hours working on PHM-related issues.

### Sudden Oak Death

*Phytophthora ramorum*, the causal agent of sudden oak death (SOD), ramorum blight, and ramorum die-back, is known to occur in coastal forests and in landscape plantings in Europe,



and has been detected in some horticultural nurseries in the United States. *Phytophthora ramorum* is one of a number of organisms (although not true fungi) that are collectively called "water molds." *Phytophthora* is translated to "plant destroyer" and most of the *Phytophthora* species are plant pathogens, many with extremely large host ranges.

During fiscal year 2004-2005, Plant Inspection personnel submitted 1,122 samples for SOD. Of these samples, 61 were Elisa positive and six were PCR positive for *Phytophthora* only. No samples collected during the fiscal year were identified positive for SOD.

Samples were collected during the fiscal year by Plant Inspection personnel as a result of the following events:

▼ Completion of the first 2004 SOD National Nursery Survey in July 2004. A total of 1,006 samples were collected from 31 nurseries (200 were collected after July 1, 2004).

▼ Completion of the second 2004 SOD National Nursery Survey in December 2004. A total of 592 samples were collected from 23 nurseries.

▼ January 2005 trace-forward inspections were conducted at seven locations receiving plant material from a SOD-positive out-of-state nursery; 31 samples were collected.

▼ May 2005 trace-forward inspections were conducted at 21 locations receiving plant material from a SOD positive out-of-state nursery; 20 samples were collected.

▼ Completion of the first 2005 SOD National Nursery Survey in June 2005; 595 samples were collected from 24 nurseries.

### Ralstonia

*Ralstonia solanacearum* race 3 biovar 2 is a bacterial pathogen that causes wilt in geraniums and is highly destructive to potatoes, tomatoes and a few other solanaceous vegetables. In September 2004, race 3 biovar 2 was suspected in geranium samples taken from a greenhouse in Quincy, Florida. Subsequent tests of water samples taken from a retention pond were also suspect. APHIS and state officials collaborated on a complete diagnostic follow-up on the suspect sample. The results indicated the organism was race 1, not race 3.

While race 1 of *Ralstonia solanacearum* is endemic in the United States, Race 3 biovar 2 is not. This strain is cited in USDA's regulations implementing the Agricultural Bioterrorism Protection Act of 2002 Select Agents and Toxins list.

Current efforts are focused on strengthening procedures for offshore geranium production through a certification and testing program. It is important to note, however, that the recent and similar detections in geraniums have all appeared as unintentional introductions of the pathogen.

### Violations and Stop Sale and Hold Orders

During the 2004-2005 fiscal year, Division of Plant Industry personnel issued four violations. Three of the violations issued were warnings, and one violation resulted in a penalty of \$4,594. There were 1,365 Stop Sale and Hold Orders for failure to renew annual registration. During the same period, 1,066 Stop Sale and Hold Orders have been released from as a result of fee payment or going out



of business. Personnel also issued 86 Stop Sale and Hold Orders for pests and disease such as citrus canker, the false codling moth and tomato leaf curl.

### Caribbean Fruit Fly Certification Program

The Caribbean fruit fly is a serious pest of many tropical and subtropical fruits of Central and South Florida. The fly-free zone certification protocol was developed to certify citrus fruit as free of Caribbean fruit fly larvae. Bermuda, Brazil, Colombia, Ecuador, Japan, Korea, New Zealand, Philippines, Thailand, the People's Republic of China, Vietnam, and the states of California, Hawaii and Texas have accepted this certification procedure, which is fully funded by grower assessments. Fruit shipped to these areas must originate in specific Caribbean fruit fly controlled or designated areas in citrus-producing counties approved for shipment of fruit.

In the 2004-2005 season, 125,200 acres were certified in 22 eligible counties. The protocol establishes a safe and effective procedure for exporting citrus to areas requiring quarantine safeguards. Japan is currently the largest importer of fresh Florida grapefruit; 4,857,921 cartons of citrus fruit were shipped to Japan under the protocol certification program this season.

### Boll Weevil Eradication

At the close of the 2004 cotton-growing season, there were 374 commercial cotton producers in the state. These producers planted 87,504 acres of cotton in 13 counties, a decrease over the 2003 growing season of 4,737 acres of planted cotton. Throughout the 2004 cotton-growing season, there were no boll weevils trapped in the state.

### Imported Fire Ant Certification Program

As of June 30, 2005, there were 1,895 nurseries and stock dealers under compliance agreement for Imported Fire Ant (IFA) certification purposes. This compares to a total of 1,520 nurseries and stock dealers under compliance on June 30, 2004. During this period, Plant Inspection personnel spent 7,961 hours associated with IFA activities.

### Methods Development and Biological Control Programs

The Biological Control Rearing Facility (BCRF) in Gainesville rears Caribbean fruit flies and Diaprepes root weevils for research. It also rears several biocontrol insects. A new laboratory for production of the phorid fly, an imported fire ant parasite, is part of the BCRF.

### Phorid Flies (*Pseudacteon* sp.)

Mass rearing of the phorid flies, *Pseudacteon tricuspidis* and *P. curvatus*, continued at the BCRF as part of a joint venture with the USDA to release these parasitoids as biological control agents against the Imported Fire Ant (IFA), *Solenopsis invicta*. This endeavor encompasses personnel and resources from the Division of Plant Industry, USDA-ARS and USDA-APHIS, and several other agencies in many of the southern states. Funding for the project continues to be provided primarily by a cooperative agreement with the USDA-APHIS. Currently seven specially designed attack



boxes are online for each species, producing an average of 500 flies/attack box/day. Over 2.2 million flies of both species combined were produced this past fiscal year. The division is awaiting two additional species of phorid flies, *P. litoralis* and *P. obtusus*, to be released by the USDA-ARS for mass rearing and shipment to field cooperators. Two additional attack boxes are currently used to investigate rearing improvements or for production purposes should one of the primary boxes develop mechanical problems.

The USDA-APHIS Gulfport Laboratory is continuing to coordinate the field release efforts with various federal and state cooperators. During this past year, the facility supplied *P. tricuspidis* to eight different states and Puerto Rico for release or research purposes. Additionally, *P. curvatus* was sent to seven states for field release. During the coming year, the division hopes to distribute both species to the majority of IFA-infested states again. It is hoped that these phorid flies

and additional species will become successfully established throughout the entire southeastern United States within the next three to five years. These various phorid flies will work together to help suppress the IFA because each fly species attacks a different size worker ant and attacks at different times of the day. The overall goal is to establish a complex of natural enemies of the IFA – similar to what exists in South America – throughout the infested regions of the United States. This will reduce pesticide usage and give native ant species and other insects as well as ground nesting birds, reptiles, amphibians and mammals an opportunity to re-establish themselves in numerous environmental niches.

### Caribbean Fruit Fly

The Biological Control Rearing Facility (BCRF) continued production in fiscal year 2004-2005 of the Caribbean fruit fly (*Anastrepha suspensa*, Loew), rearing approximately 148.8 million this year or an average of 2.86 million per week. Due to Hurricanes Frances and Jeanne, and resulting power outages and office closures, Caribfly production decreased by approximately 10 million compared to the previous fiscal year. However, average larval and pupal production per diet tray increased slightly from 50,810 in fiscal year 2003-2004, to 51,460 in fiscal year 2004-2005. Various life stages were supplied to researchers at the University of Florida and the USDA as well as for Division of Plant Industry's alternative pesticide testing, encompassing both soil drench and bait station technology.

### Diaprepes Root Weevil

Mass rearing of *Diaprepes abbreviatus* continued at the BCRF, funded in part by a Florida Citrus Production Research Advisory Council box tax grant. Multiple diet cups were infested with approximately 166,000 neonates, about 60,000 of which were transferred to single cups, from which 44,000 pupated and 38,000 emerged as adults. This represents a 39 percent decrease in neonate infestation, a 19 percent decrease in grub transfers, a 6 percent decrease in pupae, and a 12 percent decrease in adult production from the previous year. These decreases were precipitated because of a decreased demand for the various life stages by researchers. This was in part due to the unprecedented multiple hurricanes striking Florida, which diverted funding from projects, suspended some, and prevented the completion of others. However, shipments of life stages did include 15,000 neonates, 1,300 grubs and 28,000 adults to eight different researchers developing a wide range of control strategies against this agricultural pest.

Hurricane Frances caused a failure of an important component of the linear accelerator used to irradiate larval diet, which necessitated changing several production routines. The diet could not be made in advance due to the shorter shelf life and the weekend egg production could not be used due to higher microbial counts contributing to the decrease in neonate infestation. As expected, there was a significant increase in microbial contamination in non-irradiated single diet cups because these are held much longer (up to a year). Slow development was not an issue in these cups, however, because these grubs are much larger and appear less affected by the diet's moisture content.

### Pink Hibiscus Mealybug

Through June 2005, Pink Hibiscus Mealybug, *Macronellicoccus hirsutus*, has been detected on 1,292 sites in 19 counties (Brevard, Broward, Clay, Collier, Miami-Dade, DeSoto, Hillsborough, Indian River, Lee, Leon, Levy, Martin, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pinellas and St. Lucie) since the initial detection on June 21, 2002.



Delimiting surveys were conducted in new areas followed by the release of the parasites *Anagyrus kamali* and *Gyransoidea indica*, which have been received from a rearing facility in Puerto Rico on a weekly basis. From initial releases through this fiscal year, Division of Plant Industry personnel have released 658,200 *A. kamali* and 818,400 *G. indica* in 1,994 different sites. Weekly releases will continue as new sites are detected. Periodic surveys for mealybug spread, parasitism rates and the impact of hyperparasites and predators such as *Cryptolaemus montrouzieri* will continue.

### Asian Cycad Scale

Asian cycad scale, *Aulacaspis yasumatsui*, was first identified in Florida in Miami-Dade County in 1996. The infestation had apparently been present for one to two years or longer. This pest of cycads has since spread to at least 25 Florida counties where heavy infestations have been reported from Alachua County to Miami-Dade County. During February 2002, the Division of Plant Industry collected the parasitoid *Coccobius fulvus* from infested cycads in the Naples area and released about 11,000 of these parasitoids in about 15 infested counties extending from the Orlando area to the south. Unfortunately, surveys during the past three years have indicated that *C. fulvus* has not provided adequate control of Asian cycad scale populations.

During the search for natural enemies of cycad scale funded by the University of Florida's Institute of Food and Agricultural Sciences and the Division of Plant Industry, Dr. Ren Hui found *C. fulvus* in Guangdong, China. A parasite from Guangdong was collected and sent to the Gainesville quarantine laboratory in October 2004. A permit for release from quarantine was granted in June 2004. This cool-weather biotype parasite is scheduled for release in Alachua, Citrus and other north Florida counties in early fall 2005. A search for other parasitoids in China is currently under way.

### Asian Citrus Psyllid

Division of Plant Industry personnel discovered Asian citrus psyllid, *Diaphorina citri*, at Boynton Beach, Florida, on June 2, 1998. It had spread to 28 counties by 2001. It is one of the most efficient vectors of greening disease of citrus. If greening disease is ever found in Florida, this vector could spread it throughout the state. In cooperation with UF/IFAS, two parasites of *D. citri*, *Diaphorencyrtus aligarhensis*,

and *Tamarixia radiata*, were introduced in the Division of Plant Industry's quarantine laboratory on October 21, 1998. A permit for field release of *T. radiata* was granted on July 12, 1999, and for *D. aligarhensis* on March 10, 2000. In fiscal year 2004-2005, approximately 15,470 *T. radiata* and *D. aligarhensis* were reared and released from the Division of Plant Industry's laboratory. The division continues to monitor the effectiveness of these parasites.

### Brown Citrus Aphid

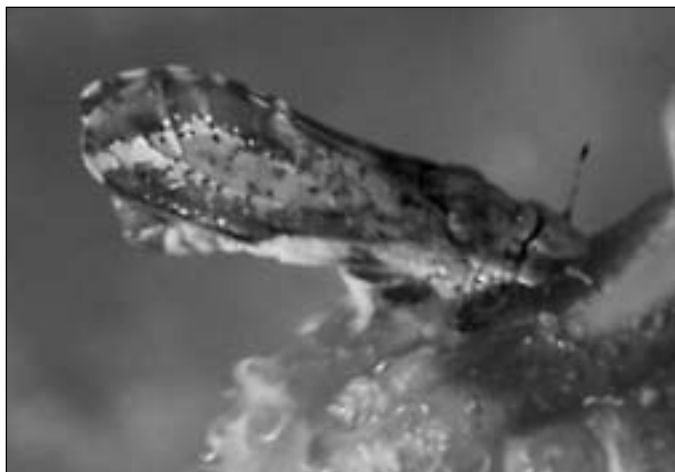
Brown citrus aphid, *Toxoptera citricida*, was detected in Broward and Miami-Dade counties in November 1995 and has since spread throughout the citrus-growing region of Florida. It causes economic losses by feeding on young citrus foliage and depleting sap. This aphid is one of the most serious pests of citrus due to its transmission of citrus tristeza virus (CTV). *Lipolexis oregmae* adults from Guam were imported into the Department's quarantine laboratory on August 19, 1999, and a permit for release of this parasite was granted on June 21, 2000. Approximately 13,700 parasites were released during fiscal year 2004-2005.

### Citrus Leafminer

The Department has continued to rear and release the citrus leafminer parasite, *Ageniaspis citricola*, especially in the areas that are infested with citrus canker in Miami and Immokalee. This parasite has been established in citrus-growing areas in Florida. Citrus leafminer populations were high in 2002, especially on young groves. To compliment *A. citricola*, the parasites *Semiolacher petiolatus* and *Citrostichus phyllocnistoides*, were introduced into the Division of Plant Industry quarantine laboratory in July and August 2003. A permit application to release *C. phyllocnistoides* from quarantine was sent to USDA-APHIS-PPQ in December 2004 and is pending.

### Lobate Lac Scale

Lobate lac scale, *Paratachardina lobata*, was first found in Broward County in 1999. This species, from India and Sri Lanka, has rapidly become a serious pest of several ornamental and native plants in South Florida. Cooperative efforts with the UF/IFAS and USDA-ARS, Fort Lauderdale, are under way to secure and introduce parasites of lobate lac scale from its native land. Two shipments of *Kerria lacca*, a commercial lac scale collected from Thailand, were sent to the quarantine laboratory in October 2003 and March 2004. Six parasites and two predators were emerged from the shipment in March, and over 1,000 parasitoids



representing three species emerged from the March 2004 shipment. Among those parasites, *Coccophagus tschirchii* and *Tachardiephagus tachardiae* were listed in the literature as primary parasites of *K. lacca* and lobate lac scale. Unfortunately, neither parasite could be reared on lobate lac scale in the quarantine laboratory in Gainesville. A search for parasites of lobate lac scale in India is under way.

### Alternative Pesticide Research and other Technique Development

Numerous pesticides from several chemical classes and with different modes of action have been evaluated in bioassays under laboratory conditions as potential replacements for diazinon, which is used as a soil drench to control economically important fruit flies. The most promising candidate compounds are now being investigated in preliminary field trials. This next phase of the research is extremely challenging due to the plethora of unforeseen circumstances which arise under field situations, i.e., variable weather conditions and predation of testing materials.

The efficacy of reduced application rates or dilutions of GF-120 NF Naturalyte Fruit Fly Bait in a simulated foliar spray for controlling the Caribbean fruit fly was further studied. Several field tests were compromised due to methodology difficulties as well as hurricanes and other inclement weather conditions. Other successful trials, which are still ongoing, show promise in potentially reducing grower costs involved in the Caribfly Protocol Program.

Work was initiated on a biodegradable bait station that would be effective in attracting and killing the Caribbean fruit fly. Design emphasis has focused on finding a matrix material which meets the essential criteria of integrity, longevity, biodegradability and economic feasibility. Incorporating an effective attractant and toxicant will also need to be addressed further.

A grant-funded joint project with Analytical Research Systems was initiated to look at the addition of a polymeric additive to the currently used Caribbean fruit fly protein bait-spray. Ideally, the additive will increase its "rain fastness" (water insolubility) and field longevity, decreasing application costs and the amount of pesticides put into the environment.

A comparative field cage study was initiated to provide a direct comparison of the two-component Concept™ Biolure® and the two- and three-component IPM™ Tech lures used for attracting and trapping the Caribbean fruit fly.

Further testing of the effectiveness of different types of neoprene material to replace the standard cloth/rubber cement panel used for Caribbean fruit fly egg collection was conducted. Results have been positive and an eventual conversion to the best grade of this new material will dramatically cut down on time and labor due to a decrease in panel replacement frequency.

### Medfly Ecllosion/Release Facility for SIT/PRP

The Preventative Release Program continued the aerial release of sterile Mediterranean fruit flies to deter the establishment of introduced wild flies. This facility also acts as a reserve for a Sterile Release Program should an infestation occur and a start-up facility for other species of sterile fruit flies if available. Sterile Medflies were released over a 570-square-mile area, which included Miami-Dade, Hillsborough, Manatee and Sarasota counties, at a rate of 134,460 per square mile or a total of 76,642,443 per week. A total of 3,985,407,034 sterile Medflies were released during this reporting period.

Other projects originating at the facility included incorporation of ginger root oil into ecllosion towers to improve mating and longevity in sterile released males and the testing of trap and lure combinations. Effect of chilling and chill time on flight and survival of released TSL Medflies has also been initiated. A new process was incorporated into standard procedures after a pilot test reduced flight time and associated costs by releasing larger numbers of flies over fewer flight lanes. Division of Plant Industry personnel also assisted with a GF-120 NF Naturalyte™ Fruit Fly Bait rate reduction test in field cages on site at the facility and assisted with the exotic pest surveys in cooperation with the Cooperative Agricultural Pest Survey (CAPS).

### Caribbean Fruit Fly Research and Activities

This program maintains continuous fruit fly trap lines in portions of St. Lucie, Indian River and Martin counties. These traps are serviced weekly and the results tabulated for later reference concerning the variation in the seasonal Caribbean fruit fly population. This data supports the Caribbean Fruit Fly Certification Program trapping information on fly populations in the urban area and is useful when conducting tests that involve the use of biological control agents or other suppression/control investigations.

In addition, a Caribfly host phenology study, lure/attractant/trap comparisons, bait station development and assistance with a GF-120 NF Naturalyte™ Fruit Fly Bait material rate





reduction were continued this fiscal year. This position has also assisted with other Department-related activities such as pink hibiscus mealybug survey and parasite release, greening disease survey and office renovation. Support was given to UF/IFAS for the establishment of the *Larva bicolor* wasp against mole cricket and to USDA for monitoring populations of phorid fly for control of the imported fire ant. A publication was co-authored on various trap/lure combinations for the Caribfly, and another paper is in publication on assessing genetic variation on Caribfly in Florida and other locations.

### **Training and Compliance/ Fumigation/Miscellaneous Activities**

Bureau personnel continued to: provide training and testing for employees for Restricted Use Pesticide (RUP) Licenses; coordinate employee applications and maintain records of CEUs for those licenses; provide record keeping for Right-To-Know and Material Safety Data Sheet (MSDS) files; coordinate disposal of hazardous chemicals produced Division of Plant Industry; and provide security/monitoring of the Gainesville facilities.

Fumigation of specimens, books, reprints, etc., for the Florida State Collection of Arthropods continued at the Gainesville DPI and University of Florida fumigation chambers. Annual evaluations and certifications of methyl bromide fumigation chambers used for blueberry

fumigation were conducted during this period. Annual evaluations and certification of five methyl bromide atmospheric fumigation chambers used for citrus certification located at the Division of Plant Industry's Wahneta Fumigation Facility were performed.

The bureau also provides technical assistance in the rearing and maintenance of a mole cricket colony located at the UF/IFAS in Gainesville. This colony is a source of healthy specimens necessary to carry on different control research projects conducted throughout Florida.

Personnel also conducted bioassays and bulk density determinations to comply with Imported Fire Ant Program regulations.

Division of Plant Industry personnel often assist with document translation and tours of facilities to domestic and foreign visitors as well as daily assistance to employees and community organizations using Doyle Conner Building facilities.

### **Apiary Research**

Bureau personnel assisted with several tests during the fiscal year relating to apiary pests. Some included:

- ▼ The determination of the dose response for a new strain of *Metarhizium anisopllae*, a fungus, compared to a Bioblast strain for the control of varroa mite, *Varroa destructor*, a pest of honey bees.



- ▼ Testing of the antibiotic Allicin against American foulbrood, a bacterial pathogen and varroa mite.

- ▼ Development and testing of a prototype spray device for liquid treatments.

- ▼ Testing of Sucroside to treat apiaries against varroa mite.
- ▼ Testing of various chemicals at varying pH as an acidification technique against varroa mite.
- ▼ Evaluation of Exomite Apis to control varroa mite.
- ▼ Evaluation of various non-residual and biodegradable materials for beehive depopulation.

### Apiary Research Activities

This past year Apiary Research has been very active. In collaboration and in conjunction with the Bureau of Methods and Biological Development, the following research activities were conducted:

- ▼ A new and innovative “top down” application for a liquid Varroa mite treatment, Sucroside, was developed. Results were published in the American Bee Journal, Volume 145, Number 7, page 587 entitled, “Varroa Mite Suppression with a Simplified Sucroside Application Method and the Effects of Sucrose Octanoate on Honey Bee Eggs and Larvae.”
- ▼ Field testing of a unique thymol-based varroa mite treatment, Exomite Apis, was published in the American Bee Journal, Volume 145, Number 4, page 305, entitled, “Florida Test of the Exosect Exomite Apis System for the Varroa Mite.”
- ▼ Acidification of Honey Bee Hemolymph using various organic acids including oxalic acid for varroa was begun with continuing trials upcoming.
- ▼ Beginning trials using Allisure®, a marketed product containing Allicin, an organic derivative of garlic, were field tested for American foulbrood disease and varroa control.
- ▼ The Apiary Section received a \$20,000 grant from the National Honey Board for continuing research with Dr. Rosalind James, researcher with the U.S. Department of Agriculture/Agricultural Research Service for a “fungus” control of varroa mites.
- ▼ The “Dowda” Method of varroa mite control using organic powdered sugar was published in the American Bee Journal as a side bar.

### Apiary Pest Treatment/ American Foulbrood Disease

Resistance to all registered antibiotics for treatment of American foulbrood disease is generally recognized throughout the state.

Every colony within the state is also experiencing some degree of resistance by the external parasite, the varroa mite, to the registered miticides Apistan® and Checkmite II®.

Small hive beetle is a continuing secondary destructive pest to varroa and American foulbrood disease, as beekeepers learn to manage for less exposure to this pest.

Honey prices have fallen to the 50 cents per pound range for all grades as a result of a flood of cheap imported honey. Cost of production in Florida is still maintained at an estimated \$1 per pound, creating an expanding production and marketing challenge. Due to the loss of approximately 50 percent of honeybee colonies this past winter due to parasitic mites and secondary infections, with a rising demand for honeybees as pollinators, the industry may be in transition to a pollination-based revenue stream if honey prices remain depressed.

In fiscal year 2004-2005, of the 201,396 honey bee colonies maintained by registered beekeepers, there were 43,619 colonies inspected from 2,481 apiaries. Compensation of \$2,670 was paid to beekeepers for 628 honeybee colonies destroyed because of infestations of American foulbrood disease. There were 100,664 colonies that moved from Florida into 17 different migratory states.

### Entomology, Nematology and Plant Pathology Entomology

During fiscal year 2004-2005, the Entomology Section completed 9,011 separate identifications involving 273,996 specimens. During that same period, five exotic species were found established within the state, all representing new U.S. records. There were also 10 new state records.

The fourth year of a four-year \$375,000 National Science Foundation grant for enhancement of the Museum of the Florida State Collection of Arthropods was completed successfully with the completion of a Memorandum of Understanding with the McGuire Center to house the Division of Plant Industry's Lepidoptera collection and subsequent preparations to move the approximately 1.5 million specimens involved. The Diptera and Hemiptera collections were expanded to take advantage of drawer space made available by the NSF grant and Lepidoptera move, and the Orthoptera collection was moved from the New Museum to the Old Museum to free up space for a rearrangement and expansion of the Coleoptera collection.

A total of 24,845 arthropod identification records were entered into the entomology database. This brings the number of searchable arthropod identification records to 119,227, with complete records for 1990 through 2005 and partial records as far back as 1983.

### Florida State Collection of Arthropods

Donations for the fiscal year totaled more than 102,777 specimens, valued at \$532,533. This brings the total number of specimens to more than 8 million. Twenty-two guided tours and presentations were given during the year, with more than 300 students and adult participants.

### Nematology

During fiscal year 2004-2005, the Nematology Section analyzed 18,168 samples. These samples contained more than 78,970 specimens of plant parasitic nematodes, which were identified to genus and/or species by the Division of Plant Industry's nematologists. This diagnostic work involved 33,665 morphological and molecular identifications. Nematological analyses for certification and regulatory programs relative to citrus, ornamentals and other Florida crops represented 93.4 percent of the total diagnostic work.

*Meloidogyne graminicola* is a root-knot nematode detected in Florida in 2002. The studies on the distribution and hosts of *M. graminicola* continued in this fiscal year. Weeds, such as purple and yellow nutsedge (*Cyperus rotundus* and *C. esculentus*) were common hosts of this root-knot nematode in Florida. In Louisiana and other countries, rice (*Oryza sativa*) is the preferred cultivated host crop. The results of this survey did not provide any evidence that *M. graminicola* parasitizes rice in the areas that were surveyed.

*Meloidogyne floridensis* is another root-knot nematode recently found infecting peach trees (*Prunus persica*) in Florida. The results of surveys and host studies indicate that *M. floridensis* is present in Alachua, Hendry, Hillsborough, Indian River, Seminole and St. Lucie counties. Herbaceous hosts of this nematode were: cucumber (*Cucumis sativus*); eggplant (*Solanum melongena*); lilac tasselflower (*Emilia sonchifolia*), a weed associated with tomato; lima bean (*Phaseolus limensis*); and tomato (*Lycopersicon esculentum*).

The studies on *Meloidogyne mayaguensis* were continued during this fiscal year. This root-knot nematode has been found in Alachua, Broward, Miami-Dade, Gilchrist, Hendry, Lee, Martin, Nassau, Orange, Palm Beach and St. Lucie counties, where it infects vegetable and agronomic crops,

herbs, fruit trees, weeds and many ornamental plants. In pathogenicity tests, *M. mayaguensis* induced a greater percentage of root galling on tomato than *M. arenaria*, *M. floridensis*, *M. incognita* and *M. javanica*. Nematode reproduction was greater on tomato plants infected by *M. mayaguensis* than on those parasitized by the other root knot-nematodes with the exception of *M. arenaria*.

The ability of three isolates of the beneficial bacterium *Pasteuria penetrans* to infect *M. mayaguensis* was determined during a biological control study. All the bacterium isolates failed to attach and develop on the nematode isolates tested.

A new lesion nematode infecting amaryllis, *Hippeastrum* sp., in Florida was detected in 2003. Morphological and molecular analyses of the populations of this lesion nematode from amaryllis have been conducted during the past two years. The morphological illustration and description of this new lesion nematode are in the last phase of preparation.

A review of nematode quarantine and certification programs implemented in Florida was completed. This review was requested by a European Nematological Journal with wide international distribution.

Division of Plant Industry nematologists were invited by the British editor Roland Perry to coauthor a book chapter titled "International Plant Health: Putting Legislation Into Practice." This chapter is to be included in a book titled Plant Nematology, edited by Roland Perry & Maurice Moens, to be published by CAB International. The chapter was completed and is to be published at the end of 2005.

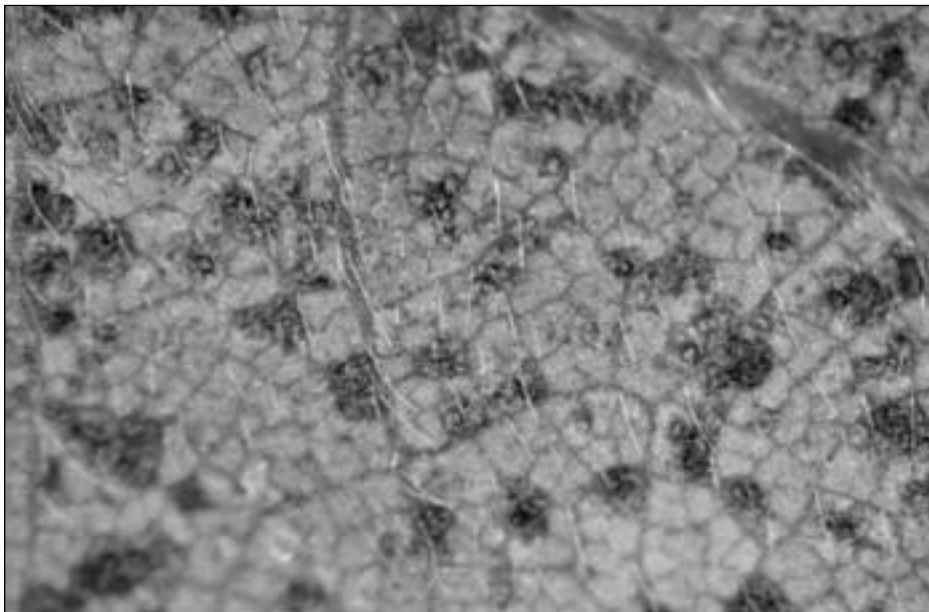
### Plant Pathology

During the 2004-2005 fiscal year, the Plant Pathology Section, including the Plantation Citrus Canker Diagnostic Lab, processed 27,922 samples. These were distributed as 17,190 citrus canker samples from Southeast Florida, 5,248 citrus canker samples from the remainder of Florida, and 5,484 regular plant disease samples from statewide sources. During this timeframe, four new fungal pathogens were identified and found new to Florida and the continental United States for the first time.

### Soybean Rust

As a result of Hurricane Ivan, soybean rust was discovered for the first time in the United States. In November 2004, samples from a UF/IFAS experimental test plot in Quincy, Florida, were confirmed positive. The disease was





also confirmed days earlier in Louisiana and Mississippi. UF/IFAS extension agents were prompted to look in their soybean test plots because of notification by Louisiana State University that soybean rust had been found in their extension service test plots.

The soybean rust pathogen, *Phakopsora pachyrhizi*, which is spread through wind-borne spores, is a fungus that causes pustular lesions on the foliage and pods of soybeans and several other legume hosts. Soybean rust also infects kudzu, the exotic nuisance weed that has spread throughout Florida. While the health of the kudzu plant is not severely impacted by the disease, it serves as a reservoir for the soybean rust pathogen. Forage legumes, such as yellow sweet clover also serve as a refuge for the pathogen in the off-season.

Florida has 13,000 acres of soybeans. Fortunately, the soybean rust occurred at a time when most soybeans in the state had been harvested. As a result, the impact in 2004 was minimal. The timing of its arrival also gave the Department, USDA, and UF/IFAS time to prepare a management strategy for the 2005 crop year. Working jointly with UF/IFAS and the USDA, the Department immediately mobilized survey efforts to determine the extent of the disease occurrence, coordinate diagnostic activities, and conduct training of both surveyors and growers for accurate detection of the disease. Since the beginning of the year, soybean rust has been found on kudzu plants in Pasco, Hernando and Marion counties, indicating that the disease is spreading.

While it may not be possible to stop the spread of the disease in the natural environment, controlling the disease in crop settings is possible. Current management strategies include early detection and timely fungicide applications. Over time, soybean rust-resistant varieties may become available.

### CAPS

With funding from the USDA-APHIS-PPQ, several positions were established to enhance diagnostic capabilities and survey and detection efforts in field crops, around ports of entry and other areas at high risk for exotic pests. Several surveys for targeted exotic plant pests have been conducted

including for citrus greening, the giant African land snail, hitchhikers associated with tile imports, and soybean rust. New initiatives are in development to survey and monitor for high risk pests such as the Egyptian and rice cutworms (*Spodoptera litura* and *S. littoralis*), exotic bark beetles and wood-boring insects in and around Florida's ports of entry. This is due to the numerous insects associated with solid wood packing materials. CAPS will also be checking for citrus variegated chlorosis, which will be added to the citrus greening surveys.

### Botany

For fiscal year 2004-2005, the Botany Section processed 6,573 samples. In addition, 331 specimens were added to the herbarium, bringing the total size of the collection to 9,201 specimens. The number of vials in the seed collection remained at 1,468.

### Advanced Diagnostics Laboratory

For fiscal year 2004-2005, the Advanced Diagnostics Laboratory conducted diagnostic tests, molecular and/or biochemical, on a total of 382 regulatory samples consisting of 3,028 individual analyses (citrus canker, Africanized honeybee, Gemini virus, sudden oak death, potyviruses and citrus greening).

### Fruit Fly Identification Laboratory (FFIL)

Together, Division of Plant Industry inspectors and USDA fruit fly survey specialists serviced approximately 59,000 traps for a total of 1,125,181 trap inspections during the fiscal year 2004-2005. Of the 1.1 million detection trap



inspections conducted, the FFIL processed 269,666 fruit fly traps or 24 percent of all traps inspected in the field and screened ca. 2,514,955 total sterile Mediterranean and wild Caribbean fruit flies. There were 354 dissections performed to confirm sterility of Mediterranean fruit flies from the preventive release areas during the fiscal year.

Although there were 74 instances where urgent suspect target economic fruit flies were sent to the FFIL, no exotic fruit flies were detected during this survey period. Through the combined early detection, identification and prevention efforts, no economically significant fruit flies became established in Florida during fiscal year 2004-2005. FFIL provided assistance to the USDA fruit fly detection program in Puerto Rico by screening 2,000 backlogged fruit fly detection traps until identifier/screeners could be trained and major remodeling and expansion efforts in the laboratory at Palmetto were completed.

### **Post-harvest fumigation at Wahneta Fumigation Station**

Fresh citrus fruit and other commodities produced in Florida must be certified for specified regulated pests to meet certification requirements of important marketing areas. Arizona requires fumigation of all citrus fruit received. California, Hawaii and Texas require certification of citrus for freedom of Caribbean fruit fly unless it has met all pre-harvest certification requirements in accordance with the established Caribbean Fruit Fly Protocol. Oregon requires fumigation for certification of fresh blueberries for freedom of blueberry maggot. Other commodities may require fumigation for certification for freedom of common pests such as the red imported fire ant.

At Wahneta, Florida, the Department provided post-harvest closed chamber fumigation service and certified 142 truck loads this year. Numbers of loads fumigated during this period decreased 45 percent. Fumigation service was provided for a fee of \$300 per load.

### **Domestic Security Actions**

The Department of Agriculture and Consumer Services has taken aggressive actions to bolster the security of agricultural resources within the state. The Office of Bio and Food Security Preparedness (BFSP), created in December 2002, provides professional expertise and leadership in homeland security and agri-terrorism prevention issues involving agricultural and food systems.

In fiscal year 2004-2005, this office worked with the Department's divisions to procure approximately \$2.5 million in federal funding through the U.S. Department of Homeland Security and the Centers for Disease Control and Prevention. These funds were used to purchase and maintain equipment, purchase supplies, improve security, and provide staff training for the Bio Safety Level 3 (BSL III) Annex at the Animal Diagnostic Laboratory in Kissimmee and the BSL III Food Safety Laboratory in Tallahassee. This funding also allows for the maintenance and operation of the four mobile gamma ray detection vehicles used at the Department's 22 Agricultural Interdiction Stations. Other uses of the funding included inspector and field staff training, travel expenses related to domestic security conferences, communications equipment, and specialized equipment for laboratories in several divisions.

## **The Office of Bio and Food Security Preparedness (BFSP) provides professional expertise and leadership in homeland security and agri-terrorism prevention issues.**

A highlight of the year was the official kickoff of the State Agricultural Response Team (SART) initiative. This initiative, led by the Department in partnership with USDA, the University of Florida's Institute of Food and Agricultural Sciences and College of Veterinary Medicine, Southern Plant Diagnostic Network, Florida Division of Emergency Management, Florida Veterinary Medical Association, Florida Farm Bureau, the Humane Society, and the Florida Animal Control Association, resulted in the training of more than 600 SART members statewide. The continued growth in this initiative will result in a well trained, coordinated agricultural emergency workforce, ready to respond to any agricultural emergency.

Staff members from BFSP were also involved in the planning and execution of domestic security exercises and training events in all seven Domestic Security Task Force (RDSTF) regions.



# PROMOTING

## Florida Agriculture

**Florida Agricultural Promotional Campaign:** The Florida Agricultural Promotional Campaign (FAPC), commonly referred to as “Fresh from Florida,” is a promotional membership program designed to boost the image of Florida agriculture and increase sales by helping consumers easily recognize Florida agricultural products at the wholesale and retail levels.

The Department’s Division of Marketing and Development continues to develop marketing strategies to assist in the movement of Florida agricultural products domestically and abroad. Efforts over the past 15 years have led to increased sales and public awareness of Florida’s agricultural industries and their vital importance to the state’s economy.

The campaign features various “Fresh from Florida” logos which promote Florida-grown fruits, vegetables, seafood, horticulture, viticulture, organic, apiary, livestock, and other specialty and dairy products. There are also logos for international buyers and consumers, including the “From Florida USA” logo and the “From Florida” logo for value-added products.

### **Storming Across North America, Florida Farmers Express, Florida Watermelon Marketing Partnership**

These three very successful marketing campaigns continued the promotion of a variety of Florida-grown fruits and



vegetables. They involved a total of 14,251 participating supermarkets resulting in 275,964 individual store ads. Over \$470 million in retail sales was generated during these campaigns.

Retailers participating in “Storming Across North America” stretched coast to coast throughout the United States and Canada.

More than three dozen retail

partners with 6,452 retail outlets generated 175,932 individual store ads which resulted in an estimated \$279.2 million in retail sales.

The Florida “Farmers Express” retail marketing campaign continued to focus on retailers in Florida, Georgia and Alabama, while expanding into Tennessee and South Carolina. Featuring the “Fresh from Florida” logo and a variety of retail incentives, six of the South’s largest retailers with 2,114 outlets generated 94,347 individual stores ads which resulted in an estimated \$189.4 million in retail sales.

The Florida Watermelon Association and the Division of Marketing and Development teamed up for a second year to expand an industry-sponsored retail marketing campaign targeting consumers in the United States and Canada. Thirteen retail partners with 2,051 stores generated 5,685 retail ads, accounting for \$9.5 million in sales.

These promotional campaigns assist in keeping Florida on an upward trend in agricultural production while many states are experiencing declines.

**The Department continues to attract international buyers with agricultural interests by conducting trade missions from Florida and hosting reverse trade missions into the state.**

**Consumer Health Initiative Campaigns**

The Division of Marketing and Development launched two public awareness campaigns to help educate African American and Hispanic consumers about obesity-related illnesses.

The African American health initiative encouraged daily exercise and the increased consumption of fresh fruits and vegetables. Celebrity fitness expert Donna Richardson Joyner served as the spokesperson to encourage healthier lifestyles. The campaign featured a series of television and radio public service announcements as well as print ads in newspapers and magazines. The division developed brochures providing tips for eating healthier and recipes for healthy snacks. Coupons were mailed to over 50,000 Winn-Dixie customers statewide to encourage increased consumption of fresh Florida produce. The Department sponsored three community outreach events that featured workouts with Richardson Joyner and included giveaways of fresh Florida produce. Events were held in Orlando, Jacksonville and Fort Lauderdale.

Marketing staff promoted the healthy lifestyle message to Hispanic consumers through major cultural celebrations and historic events throughout the state, including the North Florida Hispanic Heritage Festival, Miami's Calle Ocho, and

the Gasparilla Festival in Tampa. They provided information and nutritional facts about fresh Florida fruits and vegetables, as well as recipes for using them in traditional Hispanic meals. Multi-media advertising included press releases and inside bus signage on the Miami and Jacksonville public transit lines. Support materials developed included produce chopping pads, grocery lists and recipe brochures in Spanish.

**Trade Missions and Reverse Trade Missions**

The Department continues to attract international buyers with agricultural interests by conducting trade missions from Florida and hosting reverse trade missions into the state.

During fiscal year 2004-2005, the Division of Marketing and Development organized four trade missions through the U.S. Livestock Genetics Export, Inc. (USLGE), a cooperator with the U.S. Department of Agriculture. These trade missions included a Thoroughbred horse mission to Italy and two Brahman cattle trade missions to Brazil and Nicaragua. Additionally, the Division of Marketing and Development conducted several cattle trade missions to Puerto Rico, Mexico and Central America.

National food buyers from India and Portugal visited the state to discuss potential sales of Florida products, while a meeting between Korean horse buyers and members of Florida's Thoroughbred industry resulted in \$300,000 in sales.

**Thoroughbred Horse Sales to Italy**

The Division of Marketing and Development sent an equine trade mission to Italy as a follow-up to two reverse trade missions co-hosted by the Florida Thoroughbred Breeders' and Owners' Association. The purpose of this trade mission was to conduct seminars that would further promote the quality and value of Florida's equine industry. Thoroughbred owners, trainers, bloodstock agents and veterinarians participated in the seminars.

Reciprocal visits from contacts made during this mission are scheduled for August 2005 and April 2006. Past visits from the division's Italian contacts have yielded \$373,200 in sales of Thoroughbreds from Florida.

**Florida Agri-Journal**

The Florida Agri-Journal is a monthly publication that reaches more than 8,000 Florida Agricultural Promotional Campaign members as well as numerous Florida associations, Florida livestock producers, Agriculture Committee members from



the Florida House and Senate, and Florida State Farmers' Markets. The publication provides the agriculture industry with timely crop insurance information, risk management strategies and marketing and financial information that helps Florida specialty crop producers make informed decisions regarding their operations.

International trade leads are an integral part of the monthly Florida Agri-Journal publication. These leads are a valuable tool for Florida producers in maintaining a competitive edge in marketing and selling their products domestically and internationally. Subscribers receive comprehensive and concise information that provides an overview of activities that are important to Florida agriculture, the Department, and industry managers.

### **Seafood and Aquaculture Marketing**

The Department's Bureau of Seafood and Aquaculture Marketing provides information to the Florida seafood and aquaculture industry to facilitate buying, selling and marketing Florida seafood and aquaculture products. The mission of the bureau is twofold: to market Florida products to consumers and to assist the seafood and aquaculture industry to increase sales. The bureau has been serving the industry and consumers for over 30 years.

The bureau produces educational materials for consumers. It provides promotional materials, supplier directories and training on handling and storage safety for retailers, foodservice professionals, wholesalers and processors. The bureau provides educational and technical support and training for fishermen, aquaculturists, retailers and foodservice professionals. It serves as a liaison for aquaculturists, commercial fishermen, government agencies and the consuming public by utilizing the expertise of industry advisory councils. The bureau provides public relations to the media on behalf of the seafood, aquaculture and marine life industries. It also provides marketing services, including electronic marketing programs identifying



U.S. and international buying and selling operations. It assists and promotes Florida industry through the distribution of recipe brochures and educational materials to visitors at seafood festivals throughout the state and at industry trade events, domestically and abroad.

The Department is committed to serving seafood and aquaculture audiences with integrity and professionalism to increase the industry's sales and profits through global marketing and education. This year, seafood and aquaculture

promotional materials, press releases and public service announcements were distributed. Activities of the Bureau of Aquaculture and Seafood Marketing generated 2 billion consumer impressions nationwide with a sales value of approximately \$10 million. Chief among the audiences served by the Department are:

▼ Consumers seeking information to wisely purchase, prepare, serve and store seafood and aquaculture products. The Department reaches consumers by means of printed materials, news releases and public service announcements through television, radio, print media and appearances at regional seafood festivals.

▼ Producers (fishermen, processors and aquaculturists) needing technical, educational, marketing and promotional assistance, as well as safety, handling and storage information turn to the Department. Florida fishermen and processors took advantage of marketing and promotional opportunities to sell their products. The Department's marketing and promotional programs use the "Fresh from Florida" logo and are backed by a multilevel campaign creating consumer awareness and interest and fueling demand for Florida products.

### **Wild and Wonderful Florida Shrimp**

As a result of bureau and industry efforts, the "Florida Wild and Wonderful Shrimp" incentive program expanded into a total of 13 supermarket chains in 26 states and the District of

Columbia. A total of 3,011 stores partnered with in year two of the campaign to promote Florida wild-caught shrimp. In addition to Florida chains Publix and Albertson's, the campaign drew national and regional partners Kroger, Roundy's, Harris Teeter, Bi-Lo, Cub Foods, Heinen's, King Soopers, Schnucks, Fred Meyer, Farm Fresh and Texas-based Central Market.

**Data reported by supermarket chains that partnered in the incentive program:**

Amount purchased during ad period .....	1,381,904 pounds
Range of sales increase reported vs. same period last year .....	12 percent to 1,122 percent
Number of chains participating .....	13
Number of stores participating .....	3,011

**Geographic area covered in promotion:**

Alabama, Alaska, Colorado, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Maryland, Minnesota, Mississippi, Missouri, New Jersey, North Carolina, Ohio, Oregon, South Carolina, Tennessee, Texas, Virginia, Washington and Wisconsin

**DIVE IN! Aquarium Fish Campaign**

The "DIVE IN! Aquarium Fish" Campaign, a partnership with the Florida Tropical Fish Farms Association, American Pet Products Manufacturers Association and aquatic industry companies, is a consumer and retailer marketing and promotional campaign developed to increase sales and consumer awareness of tropical fish and aquarium accessories. This multi-component campaign, which began in October 2000, touts the positive social, psychological, entertainment and economic attributes of aquarium ownership.

The 2004-2005 campaign year included further distribution of point-of-purchase materials, consumer education tools and the DIVE IN! Pro Retail Training Program. To date, more than 3,500 pet retailers participate in the campaign through these components. Promotional activities included participation in one pet industry trade show and distribution of press releases and interviews with pet industry trade publications.

**MARFIN Grant - Grant Funding**

The bureau utilized grant funding from the National Oceanic and Atmospheric Administration's Marine



Fisheries Initiative Program to assist the southeastern domestic shrimp industry. This funding augmented funding received by those states as part of a fishery disaster assistance package.

With this funding assistance, southeastern coastal states developed and distributed wild-caught shrimp point of sale materials. The distribution of these materials in conjunction with an aggressive marketing campaign was extremely effective. This collaborative project was responsible for the distribution of over 215,000 pieces of wild-caught shrimp point of sale materials to over 2,300 retail establishments.

**Seasonal Seafood Advisory**

To better serve Florida's retail, wholesale and restaurant seafood industry, the bureau has developed the Florida Seafood Season Advisory. This advisory is published and distributed monthly via e-mail and highlights seasonal openings and closures of commercially harvested Florida seafood. In addition to the regular monthly distribution, special advisories are sent when updated information is received regarding a certain species, opening or closure.

**2005 International Boston Seafood Show**

The bureau coordinated and hosted the Florida Pavilion at the International Boston Seafood Show, March 13-15, 2005, at the new Boston Convention and Exposition Center. Eight Florida seafood and aquaculture companies were provided a high profile, eye-catching way to present and promote their products within the pavilion. Participating

in this event promotes the attributes of Florida seafood and aquaculture and gives companies an opportunity to make new contacts and generate sales. Estimated sales of companies within the Florida Pavilion at the 2005 Boston Seafood Show were over \$4 million.

### **Promoting Florida Seafood on the World Wide Web**

During fiscal year the bureau redesigned, upgraded and enhanced its web site – [www.FL-Seafood.com](http://www.FL-Seafood.com) – to better serve consumers and Florida's seafood and aquaculture industry. The improved web site loads faster, is easier to navigate, and offers many downloadable seafood and aquaculture-related brochures, videos and audio files.

For consumers, the web site features: Florida seafood recipes; nutritional information about seafood; information about 28 popular Florida seafood species; oyster safety information; calendar of Florida seafood festivals; tips for handling, storing and cooking seafood; history of Florida's coastal fishing communities; and a list of suppliers of finished alligator leather products.

For the seafood and aquaculture industry, the web site features: a calendar of trade shows and industry events; information about the "Fresh from Florida" marketing campaign; seafood handling and safety workshop information; market research reports; information about serving and handling oysters safely; industry associations contact information; point-of-sale display materials for retail stores; industry training materials; a list of suppliers of alligator hides and skins; information about receiving industry trade leads; and links to seafood and aquaculture-related web sites.

### **Food Distribution**

The Department administered or provided support through commodities and/or cash for a number of U.S. Department of Agriculture programs in Florida, including the National School Lunch Program, Summer Food Service Program, and the Emergency Food Assistance Program that provides commodities for distribution to the needy.

During fiscal year 2004-2005, more than 245 agencies, including schools, and non-profit organizations like food banks, food pantries, soup kitchens, etc., received approximately 73 million pounds of food valued at \$61 million. As a result, approximately 3 million people were reached on a daily basis, making Florida's food distribution program the fourth-largest in the nation.

The Department is also involved in programs such as the Food Recovery Program that endeavor to eliminate hunger and food insecurity in the state. This fiscal year, farmers donated nearly 14 million pounds of fresh produce for distribution to those in need. The Department produces the Food Recovery Resource Guide, which lists organizations involved in food recovery. The guide is available to the general public and to schools, restaurants, hotels and grocery stores, and other entities involved in the preparation of meals and/or the sale of food items.

### **WIC/Farmers' Market Nutrition Program**

The Florida Department of Agriculture and Consumer Services and the Florida Department of Health jointly administer the WIC/Farmers' Market Nutrition Program. This U.S. Department of Agriculture program has two statutory objectives: to provide eligible women and children who are nutritionally at risk with fresh produce; and to help local farmers by expanding the awareness of, use of and sales at local farmers' markets. In fiscal year 2004-2005, booklets totaling over \$668,000 in \$4 coupons, were provided to over 33,400 eligible WIC clients in Alachua, Bay, Escambia, Gadsden, Holmes, Jackson, Leon, Okaloosa, St. Johns, Santa Rosa, Sumter, Suwannee, Union, Volusia, Wakulla, Walton and Washington counties. Participants can redeem the coupons for the purchase of locally grown fresh fruits and vegetables from authorized farmers at community farmers' markets. WIC/FMNP is a very successful program that provides great benefit to eligible WIC clients in the form of fresh produce and to participating farmers who gain new customers. As a result, both groups continue to enthusiastically support the program.

### **Emergency Response**

As the lead agency for Emergency Support Function (ESF) 11, the Department is responsible for acquiring food, water and ice for disaster victims. In the event of a disaster, the Bureau of Food Distribution also provides USDA commodities to disaster relief organizations for the mass feeding of disaster victims. Water and ice are given out at various points of distribution throughout the affected area.

In response to Tropical Storm Bonnie and Hurricanes Charley, Frances, Ivan and Jeanne, the Department provided over 70,000 cases of USDA commodities which were used to serve more than 1,757,000 meals to victims of the storms. The Department also provided 2,750,250

gallons of bottled water and 15,356,000 pounds of ice for distribution to people affected by these events. In addition, the Department provided 79,355 cases of baby formula and baby food and 11,817 cases of baby and adult diapers and wipes. Twenty-eight Department employees contributed a total of 3,854 hours working at the Emergency Operations Center while another 32 Department employees spent 3,208 hours supporting the Logistical Staging Areas.



## Bureau of Education and Communication

The Bureau of Education and Communication is responsible for educating and informing consumers through news releases, brochures and other publications, exhibits and displays, graphics presentations, the Internet, and other multimedia productions. Bureau productions are integral to many projects that are part of the Florida Agricultural Promotional Campaign (FAPC), a program that assists the state's agricultural producers in expanding markets and promoting and selling Florida-grown products. In addition to its role within the Division of Marketing and Development, the bureau also produces numerous projects for other divisions throughout the Department.

During fiscal year 2004-2005, the bureau distributed more than 173 press releases to inform the public about various regulatory and promotional activities of the Department.

The bureau also responds to inquiries from the public, and mails out publications upon request. More than 13,452 publications were mailed in response to over 2,301 individual requests received via mail, telephone, email and the Internet.

## Florida Market Bulletin

The Florida Market Bulletin is a primary vehicle for keeping Florida's farming community informed of issues affecting the state's agriculture industry and the Department. This agricultural newspaper has been published regularly by the Department since 1917, and is currently available in printed form and on the Internet. In addition to disseminating agricultural news and information, the monthly Florida Market Bulletin provides a forum by which Florida residents can advertise to buy or sell agriculture-related items through its classified advertising section. During the 2004-2005 fiscal year 4,855 classified ads appeared in the Market Bulletin. Monthly circulation averaged approximately 9,000 during the fiscal year.

## Graphics

The bureau is responsible for the design, illustration and production of printed brochures, booklets, posters, billboards, ads, and other marketing, promotional and educational materials pertaining to agricultural marketing programs and other activities of the Department. The bureau's graphics section was involved in the production of more than 350 projects during the fiscal year. Major graphics productions included:

- ▼ Commissioner's Agricultural-Environmental Leadership Awards program booklet.
- ▼ "Woman of the Year in Agriculture Award" program booklet.
- ▼ "2004 Florida Agriculture Statistical Directory," which provides comprehensive information and data on Florida agriculture including statistics, comparative performances of major commodity groups, and benchmark economic data.
- ▼ Department Annual Report for fiscal year 2003-2004.
- ▼ Point-of-purchase and other print materials for the "Wild and Wonderful Florida Shrimp" marketing campaign.
- ▼ Print materials for the African American obesity and diabetes public awareness campaign.
- ▼ A series of promotional brochures featuring Florida fruits and vegetables.



- ▼ Interpretive panels for the Forest Discovery Center at the Florida State Fair.
- ▼ Print materials for the Southern Pine Beetle awareness campaign.
- ▼ A promotional booklet featuring Florida herbs.
- ▼ Print materials for the Hispanic nutrition campaign.
- ▼ Large-scale graphics promoting Florida seafood for display during the Boston Seafood Pavilion.

### Video and Radio

The bureau produces and disseminates audio and video productions such as television and radio public service announcements, radio programming, agricultural producer assistance videos, informational/promotional videos, documentaries, and training videos. Major video projects produced during the fiscal year included:

- ▼ Television and radio spots promoting the Florida State Fair in Tampa. The spots were produced in conjunction with the Florida State Fair Authority.
- ▼ An informational video explaining the Department's legislative budget issues for the upcoming fiscal year.
- ▼ An informational/promotional video about the Florida State Employees Charitable Contribution Campaign (FSECC).
- ▼ A television public service announcement, titled "Moving Forward Together," showing the damage to Florida crops and farmland inflicted by hurricanes Charley, Frances, Ivan and Jeanne. The PSA also informed consumers that Florida farmers were rebuilding and replanting and that "Fresh from Florida" products would be back on store shelves soon.
- ▼ A television public service announcement, titled "Now It's Your Turn," informing consumers that Florida's farmers are coming back strong after the hurricanes and are harvesting fresh products.
- ▼ A television public service announcement explaining the Department's role in regulating charitable solicitation in Florida and advising consumers to check out charities before making contributions.
- ▼ A television and radio public service announcement explaining the increased threat of wildfire due to the debris left behind by four hurricanes and urging residents to clear property and burn safely.
- ▼ A television public service announcement explaining the need for consumers to review food product nutrition

labels to help maintain a healthy diet, and explaining the Department's role in checking label accuracy.

- ▼ An informational/training video explaining the State Agricultural Response Team (SART) and how this emergency services network responds to agricultural and animal health issues following a disaster.
- ▼ A series television and radio public service announcements promoting daily exercise and consumption of fresh fruits and vegetables to help reduce obesity-related diseases in African Americans.
- ▼ An informational/promotional video about the Future Farmers of America state officers.
- ▼ A series of informational/news segments about Florida gardening for weekly broadcast on a Tallahassee television station.
- ▼ An informational video about Florida's "Woman of the Year in Agriculture," outlining the contributions to the state's agricultural community by the 2004 recipient, Martina "Teena" Borek of Homestead.
- ▼ Three informational videos about the winners of the 2004 Commissioner's Agricultural-Environmental Leadership Awards, detailing the progressive environmental efforts of: Blue Heron Groves in Lakeland; M&B Dairy Products, Inc., of Tampa; and Stan Carter of McArthur Farms, Inc., in Port St. Lucie.
- ▼ Numerous radio public service announcements pertaining to pre- and post-hurricane propane safety, and the safe use of generators during power outages following the storms.
- ▼ Numerous radio public service announcements encouraging consumers to report instances of price-gouging during declared states of emergency.
- ▼ A weekly agricultural news program produced in conjunction with Southeast AgNet.

### Marketing/Advertising Awards

The Division of Marketing and Development's advertising and marketing efforts for calendar year 2004 were recognized by the professional advertising community through the presentation of eight Addy Awards, which recognize excellence in creativity, originality and creative strategy in print and electronic media. The division received one local gold and seven local silvers.



# ENSURING

## A Safe, Wholesome Food Supply

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**The Department's experienced staff** of public health professionals and laboratory scientists monitors approximately 48,000 retail food stores, processing plants and similar businesses to ensure compliance with food wholesomeness and safety standards. The Department maintains a close working relationship with the U.S. Food and Drug Administration (FDA), the U.S. Department of Agriculture (USDA), the Florida Department of Health, the Florida Department of Business and Professional Regulation, and other agencies to share information, avoid duplication of effort and carry out food safety activities more effectively and efficiently.

The Department continues to emphasize proper sanitation and safe food-handling procedures in the establishments it inspects and regulates. It also provides consumer protection safeguards by checking the accuracy of product labels, net weight and grade standards. Laboratory analysis is performed to ensure the absence of food-borne pathogens or other contaminants. The Department continues to assist the food industry through training for the implementation of Hazard Analysis Critical Control Point (HACCP) programs. HACCP concentrates on preventing, eliminating or reducing food safety hazards to an acceptable level; these hazards may occur during any stage of the food production or handling process. Thus far, HACCP training efforts



have concentrated on high-risk foods, including sprouts, unpasteurized juices, and seafood.

One of the Department's major missions is to protect the public from unsafe foods by laboratory surveillance testing for food-borne pathogens, illegal additives or contaminants, misrepresented products, and the presence of pesticides and other chemical residues for the enforcement of established tolerances. The Department is a leader in the

development and implementation of sophisticated analytical techniques and methods to ensure the safety of foods throughout the production and distribution process. By administering the Interstate Milk Shippers Program and similar state regulations, the Department assures

consumers that dairy products are wholesome and are produced, processed and merchandised under sanitary conditions. These programs also enable Florida dairy farmers to ship their products in interstate commerce.

The Department emphasizes the prevention of food-borne illness, and when any situation relating to food safety arises, the Department has the authority to immediately

As a result of this inspection activity, the Department cited 2,705 individual food businesses for failure to meet sanitation and food safety standards; 324 of those firms received administrative complaints and were assessed \$407,175 in fines. In other actions resulting from surveillance inspections, 19,929 notices of violation, 22,688 stop-sale orders and 9,910 stop-use orders were issued.



The stop-sale orders removed 15.6 million pounds of unsafe or otherwise unfit food from the Florida marketplace. In addition to sanitation and food safety concerns, inspections also entailed a variety of other consumer protection safeguards. Food labels were reviewed for accuracy and compliance with federal and Florida requirements. Packaged foods were test-weighed to assure net weight accuracy. Ground beef was tested to ensure the amount of fat was correctly stated on the label and that poultry or pork products

stop the use of improper equipment or to halt the sale of products deemed unsafe to the public. As the lead state agency for food safety, the Department has continued to make preparations in its laboratories and inspection force to respond to any terrorist attacks on the food supply. Inspectors have been trained as first responders, and the Food Safety Laboratories have key roles in laboratory response, both at the state and national level.

### **Bureau of Food and Meat Inspection**

The Department has broad consumer protection responsibilities in the area of foods. It inspects retail food stores, food processing plants and similar businesses in Florida to assure compliance with food wholesomeness and safety standards. There were 48,654 such businesses operating during the past year, including 3,811 water vending machines. During fiscal year 2004-2005, a total of 77,741 inspections were conducted to determine compliance with sanitation standards or HACCP requirements. Other frequent activities by food inspectors included visits to establishments for complaint investigations, administrative purposes, sample collection, and enforcement actions such as placement or removal of stop-sale or stop-use orders.

had not been added; it was also tested for the presence of fillers and sulfites. Shucked oysters were tested for mandatory expiration dating and added water. Eggs were examined to verify labeled grade and size. Other foods received similar quality and safety checks.

An important part of the food inspection program is response to consumer needs and concerns. During the fiscal year 2004-2005, over 60,000 telephone calls, 1,400 email messages and numerous faxes and letters were received from consumers and permitted firms. The inquiries asked a variety of questions about food and food handling practices, or expressed a concern about food establishment conditions. A total of 2,435 consumer complaints were investigated, and each person filing a complaint was advised of the findings.

The Department continues to work in close cooperation with FDA and USDA on food safety activities. Under contractual arrangement with the FDA, the Department inspected 389 interstate food processors and collected 962 samples, of which 53 were analyzed in FDA laboratories and 909 in the Department's Food Laboratories. The Department and the FDA have also entered into partnerships in several program areas to avoid duplication, share information



and assist each other in carrying out food safety activities. The Department continued to provide egg and poultry grading and inspection service for 14 establishments under authority of a longstanding cooperative agreement with the USDA. A total of 735 million pounds of poultry and eggs were graded or inspected in order to qualify for labeling under USDA standards. Many Department officials and inspectors are commissioned FDA officers and others are licensed by the USDA.

The Department continues to emphasize the enforcement of Florida's statutory requirement that the country of origin of any fresh fruit or vegetable produced outside the United States be identified to food store customers. This identification can be accomplished through labeling of individual items or by signage at the display. During the fiscal year, 516 violations were identified and 168 administrative fines totaling \$52,000 were collected from establishments that had violations.

The Department also continued its surveillance of herbal dietary supplements containing harmful compounds. Ingestion of products containing ephedrine alkaloids (sometimes called ma huang) has been associated with several deaths, including at least one in Florida. On December 30, 2003, the FDA announced its intention to publish a final rule effectively banning the sale of dietary supplements containing ephedra. On January 7, 2004, following the announcement of the proposed ban by federal rule, Commissioner Bronson wrote a letter to Florida producers, distributors and merchants engaged in the manufacture, distribution and sale of ephedrine-containing dietary supplements. In the letter he announced the forthcoming ban and requested the industry voluntarily stop marketing these supplements immediately. Food safety inspectors visited 15,000 stores and requested voluntary removal of the product from the shelves. On February 11, 2004, the FDA published the final rule in the Federal Register declaring dietary supplements containing ephedrine alkaloids adulterated under the Federal Food, Drug and Cosmetic Act because they present an unreasonable risk of illness or injury. On April 14, 2004, Commissioner Bronson announced the stop-sale of ephedra products. On July 26, 2004, a final rule was published in the Florida Administrative Code declaring dietary supplements containing ephedrine to be adulterated under provisions of Chapter 500.10, F.S.

With the federal and state ban in effect, Division of Food Safety inspectors continue surveillance for these banned products and issue stop-sale orders for ephedrine-bearing dietary supplements when found.

The popularity of diet plans based on low carbohydrate intake continues in this country. The Department has conducted laboratory surveillance of nutrient claims for many years, but now is also focusing on specific nutritional claims such as "low carbohydrate," "reduced carbohydrate," "low fat," "low sugar," "no sugar," "low salt," "fat free," and other nutritional claims to ensure that these products are accurately represented to the consuming public. Legislation introduced in 2002 set forth specific schedules for responses

## **The Department** continued its surveillance of herbal dietary supplements containing harmful compounds. Ingestion of products containing ephedrine has been associated with several deaths.

to nutrient claims violations, and the Department has rigorously adhered to that schedule. Requirements related to such claims is determined by the FDA and adopted by the state. The result of the Department's actions on this issue has had national impact as many food processors have changed their label or their formulation to comply with labeling requirements. In addition, products have been voluntarily removed from the Florida market for failure to comply with accurate nutritional labeling criteria.

During fiscal year 2004-2005, the Department tested 437 samples for nutritional label claims, resulting in 45 violation/warning letters for nutritional labeling violations. Appropriate fines were assessed for non-compliance with the law. The Department issued notice-of-violation letters, adverse findings letters and defect action level letters when necessary to assure compliance with the law. The letters covered such issues as excess fat in ground beef; undeclared allergens; high bacterial plate counts in various ready-to-eat (RTE) foods such as sandwiches, salads, cheese, sprouts, sushi and produce; species adulteration; and general labeling deficiencies.

The Department initiated administrative actions against 1,071 food establishments that did not pay the required renewal fee for a Food Establishment Permit and collected \$680,700 in administrative fines and fees for late payment. These establishments were open for business, had been inspected and were in violation because they were operating without a permit. Permit renewal is required annually under Florida law.

### **Hazard Analysis**

#### **Critical Control Point (HACCP)**

The Department continues to be actively involved in the ongoing training and implementation of Hazard Analysis Critical Control Point (HACCP) programs in the food industry. HACCP is an internationally recognized, science-based, systematic, preventive, process control program to assure the production of safe food. It complements existing sanitation and good manufacturing practices programs. The program concentrates on preventing, eliminating or reducing hazards which may occur during any stage of the food production or handling process. Since December 1997, federal and state food rules have required seafood processors to develop and follow a HACCP plan. During the 2004-2005 fiscal year, 340 verification inspections of seafood HACCP programs were conducted. Other HACCP activities included 481 verification inspections of sushi producers' HACCP programs. The Department's HACCP unit continues to coordinate with industry and other agencies to provide training, assistance and information.

Several firms in Florida grow fresh sprouts for shipment to retail outlets such as grocery stores and supermarkets. The Department has required sprout growers to institute and use a HACCP plan to control the hazards in the growth of these potentially hazardous foods. In 2001, FDA published regulations which require fresh juice processors to apply HACCP principles in the production of juice for beverage use. During the 2004-2005 fiscal year, the Department conducted 89 HACCP inspections of fresh-squeezed juice manufacturing firms. The Department continues to provide training and technical assistance to the state's small citrus juice processors. HACCP personnel continue to be involved with industry, academia and regulatory agencies to provide training support and expertise as HACCP principles are applied in other food industries such as fresh citrus juice processing, sprout growers, shell eggs and retail establishments.

### **Other Programs**

The Department maintains an active role in managing food safety issues, including providing assistance to state and local health agencies in the investigation of food-borne illness; coordinating the collection of samples to monitor potentially unsafe foods; responding to consumer requests; providing educational materials; conducting informal hearings on administrative complaints; and interpreting rules to maintain an overall food safety program that addresses both local and national concerns.

The Bureau of Food and Meat Inspection continues an active intra-agency partnership with the Office of Agricultural Law Enforcement's Agricultural Interdiction Stations. The 24-hour, seven-day-a-week communications systems between the two entities continue to provide increased surveillance of food products entering and leaving the state. Through coordinated activities, thousands of pounds of potentially unsafe food have been destroyed and prevented from entering Florida's food chain, or the vehicles have been sealed and sent back to their state of origin. Communications have been established with the regulatory authorities in other states regarding the return of these sealed delivery trucks. Coordination with comparative agencies in neighboring states has allowed their food safety professionals to meet the truck and supervise the destruction of the products as well as take appropriate regulatory action against the firm. Cooperation between the Division of Food Safety and Agricultural Law Enforcement has resulted in enhancement of the safety of food through continuous monitoring and rapid response to problems associated with the transportation of foods throughout the farm-to-table food continuum at every road portal into the state.

In the 2003 Legislative Session, the Florida Food Safety and Food Security Advisory Council was created to serve as a forum for presenting, investigating and evaluating issues of current importance to the assurance of a safe and secure food supply to the citizens of Florida. The Department continues to host this council which brings together diverse partners to address common food safety and food defense issues of concern in Florida.

Meat, poultry, eggs, juice, dairy and other food commodities are susceptible to contamination from a wide variety of physical, microbial, chemical and radiological agents in transportation. The Florida Food Safety and Food Security Advisory Council created a workgroup to address the issue

of transportation in the food industry with a particular focus on tanker trucks. The workgroup was specifically charged with analyzing the industry's current cleaning regiments and security issues. The workgroup reported back to the Advisory Council in the fall of 2004. The recommendations from the Transportation Working Group were accepted and have become the standard guidance for the Food Transportation Industry in Florida.



The Department provides Certificates of Free Sale and food manufacturing practice documents for food products that are used for human consumption and exported to other countries. Businesses receiving such documents must be permitted by the Department and have a current satisfactory sanitation rating. In fiscal year 2004-2005, the Department processed and issued 5,683 Certificates of Free Sale. Eighty-five firms received the service this fiscal year for shipment of U.S.-origin food products to some 30 different countries. The Department oversees bottled water plants, bulk water vendors and self-vending water machines. The Department coordinates with other agencies to ensure all drinking water processed in Florida continues to meet the federal and state Safe Drinking Water Acts. Meetings conducted with representatives from Florida's Department of Environmental Protection, Department of Health, and the Water Management Districts revealed there were some areas that need greater oversight. The Department is working closely with sister agencies to clarify water source requirements and assure that all areas of the process will be adequately protected. When a bottled water product is labeled as "spring water," its source must meet a geological definition of a spring. The Department reviews labeling of water products to make sure they are accurate and are not misrepresented. The agencies are working in concert

to detail specific information for dissemination to potential operators so they know from the outset what is involved – from obtaining a permit to drill a well to the finished, safe, properly labeled, consumable product.

There are over 2,600 self-vending water machines at convenient locations throughout the state which offer another source of safe and convenient drinking water to Florida's residents and visitors. The Department uniquely identifies and tracks each machine to make sure it is properly inspected and sampled at established intervals.

Self-vending ice units are a new addition to the food industry in Florida. These units are self-contained modular buildings that produce, store, bag and vend ice to consumers. The Department has been actively involved in evaluating the design, construction and sanitation procedures to confirm compliance of the units with all sanitation code requirements.

Hurricane recovery efforts were a major focus of the Department's priority work in fiscal year 2004-2005. The Department planned and carried out a well organized response to the emergencies created in food safety as a result of four major hurricanes. Working closely with federal, state, local and industry partners, it should be noted that there were no reported food-borne illnesses during the four major hurricane events. The work accomplished during recovery efforts by the Department included over 12,000 firms visited, with staff conducting 17,500 inspections. The effort of the emergency inspections teams resulted in over an estimated 200 million pounds of potentially harmful food being destroyed and removed from the marketplace, either through regulatory or voluntary actions. Hurricane relief efforts involved the entire Bureau of Food and Meat Inspection. The outstanding hurricane recovery efforts resulted in the Bureau receiving a 2005 Davis Productivity Award for the Rapid Food Safety Protection Team. All 182 members of the Bureau of Food and Meat Inspection in the Division of Food Safety contributed to the rapid and effective intervention to protect consumers from unsafe food during the hurricane season of 2004.

Marketplace survey food samples are taken as a matter of routine during the inspection process or if violation of state or federal standards is suspected. In fiscal year 2004-2005, field inspection staff collected over 6,500 samples for laboratory testing and analysis. These samples are sent to the Tallahassee-based State Food Laboratories for analysis.

Florida has some of the most stringent and far-reaching food safety laws in the nation. The Department has broad powers for enforcing food protection laws. Regulatory action is often taken on the laboratory results from the survey samples. The Department has initiated nationwide and statewide recalls of food products in conjunction with FDA based upon violated laboratory results. The marketplace survey sample program is just one more level of consumer protection that the Department offers to Floridians.

In conjunction with the USDA, the Department periodically conducts inspections for food products illegally imported for sale. Products found include: illegal invasive plants; plants and animals from prohibited disease- and/or pest-infested areas; and meats from foot-and-mouth disease, hog cholera, and Bovine Spongiform Encephalopathy (mad cow disease) areas.

### **Bureau of Chemical Residue Laboratories**

One of the Department's major missions is to protect the public by monitoring fruits, vegetables and other foods for the presence of unsafe residues of pesticides or other chemicals and the enforcement of authorized tolerances. The Bureau of Chemical Residue Laboratories analyzes food items for the presence of potential chemical contaminants.

Food samples are collected from farms, packing houses, processing facilities, and in the distribution chain. All foods grown in Florida, and those brought into the state to be offered for sale, are subject to unannounced collection and analytical testing to assure adherence to the standards for allowable levels of pesticide or other chemicals, freedom from contamination or illegally used chemicals, and proper representation in labeling. The Department also provides pesticide residue data to federal agencies for use in making dietary risk assessments and for other purposes. During fiscal year 2004-2005, the Department's laboratories conducted some 397,603 different determinations for residues of specifically targeted pesticides and other chemicals on 3,362 food product samples.

### **Pesticide Residues**

The primary focus of the Chemical Residue program is the analysis of pesticide residues in fresh fruits and vegetables. The Department's regulatory program is one of the most comprehensive monitoring and enforcement programs in the nation and provides the residents of Florida with

valuable information concerning the safety of the food supply. In addition to assuring the proper use of pesticides by Florida growers, a thorough testing program enhances the status of Florida-grown produce in nationwide and international markets.

Florida is an important producer of fresh fruits and vegetables for the nation. Samples are selected for regulatory surveillance based on several factors. An emphasis is put on Florida-grown commodities. Statistics on Florida-grown produce, as well as national consumption patterns and previous history of pesticide residue findings, are used to develop sampling plans which will target products most likely to contain illegal residues.

During the past year, the Department conducted surveys of both tomato and strawberry growers early in the growing seasons in order to assure proper pesticide use. A survey of fresh herbs resulted in the destruction of several hundred pounds of product containing illegal residues. In both fall and spring, Florida oranges and grapefruits were sampled. Grapefruit are exported to Japan, and growers must meet strict pesticide regulations. Data provided by the Department can help provide assurance of the safety of Florida produce and aid its acceptance into foreign markets.

During fiscal year 2004-2005, the Chemical Residue Laboratories analyzed 1,484 samples in its regulatory surveillance monitoring program, 1,760 samples under contract with the USDA, and 18 samples from other sources were examined in consumer complaint investigations. The regulatory samples included 1,429 fresh fruit or vegetables and 34 honey products which were tested for possible pesticides. In addition, 22 of the 34 honey products and 21 imported seafood products were tested for illegally used antibiotics. Products sampled in the regulatory program were grown in Florida (718, or 48.4 percent), other parts of the United States (507, or 34.1 percent), or were imported foods destined for Florida markets (259, or 17.5 percent). During this period imports from 29 different countries were analyzed.

More than 140 pesticides are validated for analysis in the laboratory's multi-residue surveillance program. Pesticide residue violations led to 32 separate investigations of food adulteration incidents during fiscal year 2004-2005. Commodities involved in violations were cabbage, Chinese mustard, Chinese radish roots, cucumbers, eggplants, ginger root, guavas, malanga, mamey sapote, mangoes, papayas,



peaches, pineapples, potatoes, radish tops, rosemary, snow peas, squash, strawberries, sweet potatoes, thyme, yams and zucchini. Whenever possible, field personnel traced back product to its origin and took additional samples. Of the fresh fruit and vegetables analyzed in this regulatory surveillance program, 40, or 2.7 percent, exceeded established tolerance levels or contained pesticides not approved for use on a commodity. However, in imported products tested, 23, or 8.9 percent, were in violation, while only 1.4 percent (17 of 1,125) of domestic fruits and vegetables were identified with illegal residues. By agreement with the FDA, the state surveillance focus is on domestic products while the FDA targets imports. This is efficient because the FDA has the necessary resources to restrict future products from entering the United States.

The Department also focused on enforcement of crisis exemptions which were granted to beekeepers for the use of coumaphos to control varroa mites in beehives. A method was developed for the analysis of 12 pesticides in honey, including coumaphos, and 34 samples collected at individual beekeepers were analyzed. The Department continued its monitoring of crisis exemptions this year. Of the active ingredients with exemptions, all of the fruit, vegetable and honey exemptions are monitored, including pyriproxyfen in legumes, fenbuconazole in grapefruit, and thiophanate methyl in tomatoes and citrus. Additional special surveys to monitor crisis exemptions for other commodities/pesticide combinations will be continued.

The Department continues to participate in the USDA Pesticide Data Program (PDP), an internationally recognized program that focuses on providing comprehensive data on pesticides for the purpose of risk assessment. An additional 1,760 samples of pears, grapes and green beans were analyzed as a part of this program, which targets very low part-per-billion levels of pesticides and commodities most frequently consumed by infants and children. Samples include both domestic and imported products and commodities, and sampling sites are determined by statistical plans.

### **Antibiotic Residues**

Chloramphenicol had been detected previously in honey samples analyzed by the Department and by the FDA, and in samples analyzed overseas. Chloramphenicol gained international attention when it was first detected in seafood in early 2002. In fiscal year 2004-2005, the Department screened 21 seafood samples and 22 honey samples. One finding of

illegal residues on crabmeat resulted in an import alert by the FDA. The Chemical Residue Laboratory continues to work closely with the FDA to assure that, when illegal residues are found, actions are taken to remove unsafe product from sale. The reduced number of findings compared to fiscal year 2003-2004 shows that this effort has been successful.

### **Bureau of Food Laboratories**

The Bureau of Food Laboratories uses chemical, microbiological, molecular and physical methods to analyze foods processed or sold in Florida. These analyses help to ensure a safe and wholesome food supply by verifying the absence of adulterants, especially microbial food pathogens and food allergens, by verifying



conformance with standards of safety and quality, and by ensuring accurate representation in labeling and nutritional claims. Emphasis is placed on current and emerging food safety issues, such as microbiological contamination, unapproved food components, filth, chemical and heavy-metal contaminants, new food and food packaging technology, dietary supplements and other label and nutritional claims, and natural toxicants. The Food Laboratories is also a national leader in preparations to respond in the event of a terrorist incident involving the food supply.

Testing of food products using molecular methods, especially nucleic acid analyses based on the polymerase chain reaction (PCR), continued expansion during the year and includes testing for *E. coli* O157:H7, Shigella and Salmonella. Molecular methods for analysis of Hepatitis A in green onions, cyclospora in produce, noroviruses, and *Vibrio parahaemolyticus* and *Vibrio cholerae* in shellfish are undergoing development or validation. Additionally, PCR was used to test animal feed for contamination by prohibited materials. Testing for specific toxin genes was implemented for the USDA Microbiological Data Program (MDP).

DNA fingerprinting, or pulsed field gel electrophoresis (PFGE), is being performed by the Food Laboratories for quality control, as well as for typing when specific organisms such as *Listeria monocytogenes* or Salmonella are recovered from a food product. The patterns produced by the PFGE are submitted through the USDA and the Florida Department of Health for inclusion in the PulseNet national database. This data can then be used by epidemiologists in search of the causative agent for outbreaks. The staff is obtaining certification in PFGE.

### Food Analyses

During fiscal year 2004-2005, the Department performed 58,300 analyses on 12,239 samples. The majority of samples (7,939) were received under Division of Food Safety or other Department regulatory inspection programs. In addition, significant numbers of samples (1,211) were received from the joint state and USDA Microbiological Data Program (MDP) and 3,089 were MDP and other special samples. Out of 7,939 regulatory samples, 7,428 samples, representing 93.6 percent of state program samples, were found to be in compliance with all applicable food safety requirements. A summary of regulatory pathogen analyses results is shown below:

Summary of Regulatory Pathogen Analyses	
Organism	Adulterated Samples
<i>Listeria</i> spp.	83 of 3,093
Salmonella	4 of 1,252
<i>E. coli</i> (generic)	61 of 2,848
<i>E. coli</i> O157:H	72 of 509
<i>Staphylococcus aureus</i>	10 of 2,226

Food safety issues remain a major emphasis of the analytical program. With the continued identification of food-borne illness outbreaks, increased monitoring for pathogens in ready-to-eat food is necessary. Microbiological pathogen

analyses focused on Salmonella, *Listeria monocytogenes*, *Staphylococcus aureus*, *E. coli* O157:H7 and generic *E. coli*. Targeted products for these analyses included ready-to-eat produce, processed meats, fresh cut vegetables, sprouts, prepared salads, ground beef, cheese, smoked fish, spices and sandwiches. As a result of past outbreaks, the Department continues to monitor fresh citrus juices. Additionally, analyses of bottled and vended water for adulteration by either microbiological or chemical contaminants represented a significant component of state surveillance programs:

Summary of Water Analyses	
Sample Type	Adulterated/Misbranded
Vended Water	11 of 1,264
Bottled Water	3 of 304
Total Water	14 of 1,568

In its fifth year, the USDA Microbiological Data Program (MDP) required Florida, California, Colorado, Michigan, New York, Ohio, Texas, Washington State and Wisconsin to systematically monitor fresh produce commodities for Salmonella and generic *E. coli*. A total of 1,211 samples were analyzed by the Department. Commodities tested included leaf and romaine lettuce, domestic and imported tomatoes, cantaloupe, cilantro, green onions and parsley. The sampling plans and findings of the collective participating laboratories provided an accurate representation of national exposure to the selected pathogens. Further expansion of this program, both in types of organisms (for example, adding testing for Shigella) and commodities tested is expected. During this fiscal year, the MDP program was expanded to include analyses for *E. coli* O157:H7. A project to test for toxigenic *E. coli* other than *E. coli* O157:H7 involved testing of almost 3,000 samples for the MDP program using a multiplex PCR test.

In August 2002, the Bureau of Food Laboratories was certified by the FDA for microbiological testing of shellfish in support of the National Shellfish Sanitation Program (NSSP). The laboratories are due for reinspection in 2005, and are maintaining competency for this certification.

Other areas of public health and consumer protection emphasis include monitoring juices, honey, syrups and vanilla for fraudulent formulations or adulteration; ground

meats for fat claims and species identification; lead in candy; and artificial colors in candy, sodas and bakery products. Bakery products are also monitored for insect filth and rodent contamination. Dietary supplements continue to be monitored for the presence of ephedra alkaloids. Unsafe or misrepresented products are removed from sale by the Bureau of Food and Meat Inspection.

Florida's fresh seafood is monitored by the Department in response to concerns regarding species identification, decomposition (histamine) and safe levels of mercury. Fish tested by the Department include tuna, grouper, mahi-mahi, red snapper, salmon, swordfish, mackerel, blue marlin, amberjack and catfish. A DNA sequencing method for authentication will be evaluated in the coming year.

The Department continues its extensive surveillance of products making nutritional claims such as "low carbohydrate" and "fat free." Products making "sugar free" claims have been under particular scrutiny due to their potential impact on diabetics and other consumers. Monitoring of undeclared food allergens continues with particular focus on milk, egg and peanut allergens. With the passing of the Federal Food Allergen Labeling and Consumer Protection Act, the Department continues to ensure appropriate and understandable food allergen labeling.

A norovirus detection method for oysters developed in-house using an FTA filter was modified to detect Hepatitis A on green onions, the cause of a recent large outbreak, and cyclospora analysis is currently being evaluated. The Molecular Laboratory also modified and tested food sample preparation methods for the Food Emergency Response Network (FERN) protocols for real-time PCR and conventional PCR detection for certain pathogens on food samples.

### **ISO 17025 Accreditation**

The Division's Food Safety Laboratories made significant progress toward the goal of ISO 17025 accreditation. Accreditation to this international standard is increasingly recognized as the primary standard for assessing the quality of test laboratories. The bureaus have commenced final preparation for an ISO 17025 audit. A quality manual has been completed, and extensive efforts have been made in the areas of document control, written procedures and training documentation.

### **National Databases**

Both the Food Laboratories and the Chemical Residue Laboratories continue to provide data to the FDA-supported eLEXNET national data system, which allows real-time exchange of information concerning potential or suspected food supply problems. The Food Safety Laboratories' staff is working on the eLEXNET Library of Analytical Methods pilot. Staff members use eLEXNET for Food Emergency Response Network (FERN) projects.

**The Department continues its surveillance of products making nutritional claims. Products making "sugar free" claims have been under particular scrutiny.**

Protocols for automated transfer of data from the Food Laboratories information management system to the MDP database have also been implemented. The Chemical Residue Laboratories has submitted data to the eLEXNET national repository of food sample analyses. Data will be exported directly from the laboratories database to the eLEXNET system. An application was also developed which provides direct export of data collected for the Pesticide Data Program from the laboratories database to the PDP Oracle database in Washington, D.C.

### **Education and Training**

Educational opportunities for laboratory personnel were emphasized in order to remain on the leading edge of science and technology. In July 2004, the Department hosted the 41st Annual Florida Pesticide Residue Workshop (FPRW), with the Food-borne Pathogen Analysis Conference on hiatus for this year and beginning again in July 2005. Both conferences are highly regarded for their excellent content and speakers; they allow Department chemists and microbiologists to share the latest developments in technology with experts from other agencies and nations. The FPRW was attended by over 120 scientists and included representatives from six foreign countries. In addition, Department scientists have been active on several national committees and attended and hosted training workshops in order to update knowledge in the areas of analytical

chemistry, microbiology, and new technologies. The MDP laboratories were hosted by the Food Laboratories for a weeklong training course on multiplex PCR. Several staff members made poster presentations at national meetings.

## **Protecting Citizens in the Event of Food Terrorism**

### **Food Security/First Responder Training**

Recognizing the ongoing public concern about terrorist actions against the food supply, the Department conducted a two-day training course for all food inspection field and headquarter personnel (three sessions statewide) to sharpen response skills. The Department's Office of Bio and Food Security Preparedness and Division of Food Safety, along with law enforcement agencies, collaborated to develop the course. The training focused on food security in food processing plants, warehouses and retail outlets. It also included incident command training, digital photography for evidence gathering, chain of custody food sampling techniques, general evidence gathering and crime scene security, and personal security.

### **Responding to Food Terrorism**

The Food and Chemical Residue Laboratories continued their initiative to enhance capability to respond to a counter-terrorism incident involving the food supply. Accomplishments in this domestic/food security initiative include maintaining strong partnerships with other state and federal agencies – including the Florida Department of Health, FDA, USDA and Centers for Disease Control and Prevention (CDC) – operation of an active Biosafety Level-3 laboratory, the acquisition and use of sophisticated analytical equipment, and substantial ongoing training of staff in procedures for processing and analyzing samples suspected of containing terrorist threat agents. Staff attended training at the regional FDA and USDA laboratories, at workshops, via teleconferences and at the Food Laboratories. Additionally, bureau staff gave lectures and presentations on issues in domestic/food security at conferences throughout Florida. Food Laboratories staff have been instructors at FERN workshops on Real-time PCR as well as microbiological analysis for potential threat agents.

The Food Laboratories have undergone inspections by both the CDC and USDA regarding its capability to safely handle and provide security of highly dangerous select agents, and the laboratory satisfied all requirements. This has

allowed the Department to be the only state agricultural department to have a food laboratory as a member of the National Laboratory Response Network (LRN) for public health protection.

Renovations of existing laboratory space were completed in the Chemical Residue Laboratories to provide space for safe and secure preparation and analysis of foods for presence of hazardous chemical agents. The renovated space includes two large chemical fume hoods and associated equipment for sample preparation and extraction as well as space for eight state-of-the-art instruments.

Both the Food Laboratories and the Chemical Residue Laboratories are active members of the Food Emergency Response Network (FERN). FERN was formed to respond specifically to the threat of terrorism in foods. In addition to biological capabilities, the laboratories have expanded counter-terrorism capabilities to include testing foods for chemical agents. Verification of FERN methods and protocols to be used in the event of national food emergencies are being performed by both the Food Laboratories and the Chemical Residue Laboratories. These rapid methods, designed to identify unknowns at toxic levels, require sophisticated instrumentation and a high level of technical expertise. The collaborative contributions of these two state food laboratories to national food security exercises are making Florida a national leader in food safety and security. The laboratories have participated in seven FDA or FERN counter-terrorism surveillance exercises and several FERN or LRN proficiencies since July 2004.

## **Milk Products**

### **Division of Dairy Industry**

The Department's Division of Dairy Industry ensures that dairy products purchased by Florida consumers are wholesome, produced under sanitary conditions, and correctly labeled. The division regulates the production, transportation, processing, distribution and labeling of milk and milk products. It establishes standards for these products, whether they originate in Florida or other states.

The division issues permits and conducts inspections for Florida dairy facilities. As of June 30, 2005, these facilities included:

- ▼ 178 dairy farms
- ▼ 16 milk processing plants



- ▼ 69 frozen dessert manufacturers
- ▼ 20 single-service milk container manufacturers
- ▼ 47 milk distribution depots
- ▼ 12 milk receiving, transfer, and wash stations
- ▼ 20 milk hauling services

In addition to its inspection program, the division collects and tests samples from dairy farms and processing plants for compliance with established product quality standards. These samples are collected by field inspectors and tested in a division laboratory for excessive bacteria and somatic cells and for the presence of antibiotics, added water and other impurities.



The programs administered by the Division of Dairy Industry are part of a uniform national dairy sanitation program outlined in the Pasteurized Milk Ordinance (PMO) published by the U.S. Food and Drug Administration. Likewise, most of the dairy product quality standards enforced by the division are part of the PMO or the Code of Federal Regulations. As in all states, both the PMO and the relevant sections of the Code of Federal Regulation have been adopted in state statute or rule.

The fact that all states have adopted uniform regulations makes it possible to ship dairy products from state to state with a minimum amount of interstate regulatory interference. The interstate shipment of dairy products is coordinated through the Interstate Milk Shippers Conference, an organization that includes representation from FDA, the dairy producing and processing industry, and all state dairy regulatory agencies.

An IMS Rating Officer routinely performs surveys for the purpose of determining compliance with the PMO. In addition, the FDA will conduct periodic check ratings to determine if both the industry and state regulatory agency are in compliance with the requirements in the PMO. A state that fails its FDA inspection can be denied the right to ship Grade A milk across state lines. During fiscal year 2004-2005, IMS Rating Officers performed three plant surveys, five single-service containers manufacturer audits and eight farm group surveys involving 133 dairy farm inspections. FDA conducted three plant check ratings, seven single-service container manufacturer audits, and five farm group check ratings involving 15 farms.

### **The Florida Dairy Industry**

Florida dairy farms are large, milking an average of about 750 cows each. In spite of the hot, humid climate, these cows average about 15,218 pounds of milk per year or about five gallons per day per cow. Even though the state's 142,000 dairy cows rank it first in the Southeast and 16th nationally, Florida still imports approximately 25 percent of its milk, and the proportion of imported milk is growing. Florida's 16 Grade A milk processors include four Dean Food plants, two Publix plants, one Winn-Dixie plant, and two plants owned by National Dairy Holdings Group, LP.

### **Dairy Inspections**

The division's 11 field inspectors are stationed from Miami to Pensacola. They make regular visits to dairy farms and processing plants to conduct inspections, consult with management and staff, and collect samples. During the past year, dairy inspectors performed 1,694 inspections at dairy farms and plants in Florida. They also collected 12,433 samples of milk and milk products. They made 2,072 inspections of milk transport tankers and bulk milk haulers.

### **Monitoring Antibiotics in Milk**

The industry has established a rigorous program to monitor milk for contamination with residues of antibiotics commonly used to treat cows on dairy farms. During the 204-2005 fiscal year, 60,896 transport tankers representing more than 2.8 billion pounds of milk were checked for antibiotics in Florida. Only eight (1 in 7,612) of these tankers, were found to contain traces of antibiotics. All eight loads were dumped. Nationally, about 1 in 2,043 tankers of milk are found to have antibiotic contamination. Florida dairymen do an exceptional job of preventing antibiotic residues in their milk.

### Checking the Weight of Milk Products

The division has several inspectors trained to make official weights of milk products and has been monitoring weights of processed milk containers in Florida for over 18 years. During the year, inspectors conducted 34 of these weight checks and 100 percent of the lots passed.

### Aquaculture

The Division of Aquaculture was created in 1999 by the Florida Legislature and is responsible for six programs: aquaculture certification, aquaculture leasing of sovereignty submerged land, shellfish resources development, shellfish processing plant certification, shellfish harvesting area management, and technical support. Florida's aquaculture industry is one of the leading producers in the nation with \$95 million in farm gate value during the 2003 production year.



### Aquaculture Certification Program

Chapter 597, F.S., established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the Best Management Practices provided in Chapter 5L-3, Florida Administrative Code. The Aquaculture Certificate of Registration is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state. Site inspections are conducted at aquaculture facilities to ensure compliance.

The Department certified 1,002 aquaculture facilities during fiscal year 2004-2005. Shellfish producers

make up 49 percent of certified farms, 22 percent are ornamental producers, and 21 percent produce food fish, with the remaining producing live rock, alligators and bait. Certified farms are found in 63 of the state's 67 counties, with the highest number of certified farms (20 percent) occurring in Levy County. Dixie and Hillsborough counties are next with 8 and 9 percent, respectively.

### Sovereignty Submerged Lands Leasing Program

The Department is responsible for the Aquaculture Lease Program under the provisions in Chapter 253, F.S. Currently, the Department administers 652 aquaculture leases containing about 1,551 acres and 78 shellfish leases containing about 1,277 acres. Aquaculture leases are located in Brevard, Charlotte, Dixie, Franklin, Indian River, Lee, Levy, Manatee, Monroe, Palm Beach, Pinellas, St. Johns, Volusia and Wakulla counties. In response to its statutory mandate, the Department identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty-one Aquaculture Use Areas have been identified by the Department and authorized by the Board of Trustees in nine coastal counties including Brevard, Charlotte, Collier, Dixie, Franklin, Indian River, Lee, Levy and Volusia.

### Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge and protect the oyster and clam resources of the state, the Department is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During fiscal year 2004-2005, the Department collected 62,260 bushels of processed oyster shell from processors in Franklin County. Oyster resource development projects were conducted in cooperation with local oystermen's associations in four coastal counties. A total of 258,868 bushels of live oysters were replanted on public reefs in Franklin, Wakulla, Dixie and Levy counties.

### Restoring Public Oyster Reefs

The Department is involved in a comprehensive multi-county project to restore oyster reefs that were damaged by Hurricane Ivan through a \$1.7 million grant from the National Oceanic and Atmospheric Administration. This project is designed to enhance oyster production, to facilitate recovery of the oyster business, and to provide significant resource restoration benefits. The

project promotes the development of self-sustaining reef communities, which in turn perform ecological services which contribute to fisheries habitat, ecosystem stability, nutrient cycling and improved water quality. Functioning oyster reefs are recognized as an essential component in stabilizing and sustaining ecological relationships in almost all Gulf estuarine ecosystems.



### **Shellfish Harvesting Area Classification and Management Program**

This program seeks to classify and manage Florida coastal waters for maximum use of shellfish resource, protection of public health, and promotion of a healthy coastal environment. The program is audited each year by the U.S. Food and Drug Administration to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 38 shellfish harvesting areas are currently classified and managed statewide. During fiscal year 2004-2005, the required annual update reports were completed for all 38 shellfish harvesting areas and all of the shellfish harvesting areas requiring a triennial reappraisal report were completed. The data and reports support current classification and management for all shellfish harvesting areas.

During fiscal year 2004-2005, a total of 694 sampling excursions were conducted to collect and analyze 14,572 water samples for

fecal coliform bacteria. There were a total of 598 closures and re-openings of shellfish harvesting areas.

### **Shellfish Processing Facility Program**

This program seeks to ensure wholesome shellfish products through inspection, education and enforcement of state regulations and national guidelines. The program is audited each year by the U.S. Food and Drug Administration to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 100 Shellfish Processing Plant Certifications Licenses were issued during fiscal year 2004-2005. A total of 419 regulatory processing plant inspections were conducted.

Based on fiscal year 2004-2005 inspection results, a total of 79 warning letters and 34 settlement letters were issued. Action was taken to destroy shellfish products when they were found to be adulterated, contaminated, unwholesome, mislabeled, or exceeding the product shelf life.

### **Technical Support Programs**

The division provides substantial technical and administrative support for aquacultural and shellfish operations. Staff provides and participates in workshops, seminars and problem-solving activities to help provide information to Florida farmers. In addition, staff manages contracts to researchers for legislative appropriation to provide quick answers to industry issues.









# CONSERVING

## the Natural Environment

### Scientific Evaluation Section

**Registration Reviews:** During fiscal year 2004-2005, staff of the Scientific Evaluation Section (SES) conducted environmental fate and effects reviews on 37 active ingredients in 54 product brands in support of New Active Ingredient, Significant New Use, Special Local Need (SLN), and Experimental Use Permit registration requests. The results of these evaluations were presented during the monthly meeting of the Pesticide Registration Evaluation Committee.

With the exception of one SLN request, SES accepted all of the above requests after determining that the products would introduce no unacceptable risk to human populations, non-target species or the environment when used according to the label. In some cases, product registration was approved on the condition that additional studies be submitted to further ensure that the product would not adversely impact water quality, non-target species or human health. In addition to registration evaluations, SES evaluated the environmental fate and potential toxicity of 16 products seeking emergency-use exemptions (Section 18). To bolster the review process, SES used many of the methodologies recently developed for special category registrations.



### Investigative Reviews

In addition to reviews conducted in support of pending pesticide registrations, SES staff also conducted evaluations in response to requests from the Bureau of Compliance Monitoring, the Bureau of Entomology and Pest Control, the U.S. Environmental Protection Agency, and the public or in response to statutory requirements. These assessments may be related to agricultural use of pesticides, mosquito control operations or general pest control. Several of the review efforts are highlighted below.

### Birth Defects in Farm Workers

SES staff provided support to the Bureau of Compliance Monitoring and the Florida Department of Health in a case involving three migrant worker women in Immokalee



who gave birth to babies with profound birth defects. The SES effort focused on identifying the pesticides that were used at the site when these women worked and evaluated the potential for each of these materials to cause adverse developmental effects. The Department continues to consult on this case with the Collier County Health Department, the Florida Department of Health, and the EPA.

### City of Orlando Human Health Inquiry

This year, an article was published reporting that landscape workers planting flowers in Orlando parks experienced skin disorders that were attributed to long-term exposure to pesticides. In response, Department staff evaluated data collected during the investigation, including pesticide use inventories, records of the specific flowers planted by the workers, and worker medical records. Staff also conducted a thorough toxicological review of the chemicals of concern, to assess the potential for causing the contact dermatitis that was diagnosed in the case. Based on the information provided, the Department was not able to substantiate the claim that pesticides were the cause.

### Termiticide Efficacy Reviews

In March 2003, the Department adopted the Termiticide Efficacy Rule (5E-2.0311, FAC), which requires that any product to be used as a preventative treatment against termites in new construction in Florida must satisfy specific efficacy criteria. To date, the Division of Agricultural Environmental Services has received efficacy packet submissions from 22 registrants associated with over 50

products. The SES has completed and posted nine efficacy reviews on the division web site and has accepted several protocols from other registrants to gather the necessary data. SES continues to provide oversight to assure that registered products satisfy the Rule and in the coming year anticipates the submission of progress reports from several efficacy studies, as a condition of registration.

### Miscellaneous

Staff conducted toxicological and/or environmental fate evaluations of pesticide active ingredients in response to public inquiries, division inquiries, federal register notices, or release of a Re-registration Eligibility Decision document by the EPA.

### Activities during this quarter included, but are not limited to, reviews of the following active ingredients:

Aldicarb	Maneb
Bifenthrin	Methoprene
Chloropicrin	Methyl Iodide
Dicrotophos	Methylisothiocyanate
Diuron	Metiram
Ethylene dibromide	Permethrin
Fipronil	Quaternary amines
Hypochlorous acid	Simazine
d-Limonene	Sodium cyanide
Metam sodium	Spinosad

### Training

Staff of SES continues to attend programs to upgrade and maintain technical skills. They also attended training programs focusing on incident command, geographical information systems, risk assessment, worker safety, public health, and computer modeling of environmental fate.

### Ground Water Protection

#### Lake Wales Ridge Monitoring Network

The Lake Wales Ridge Monitor Well Network, located in citrus-rich Polk and Highlands counties, is a collaborative effort by the Department, the U.S. Geological Survey (USGS) and the Southwest Florida Water Management District. The 31 wells of the network are sampled quarterly to assess temporal trends in ground water

pesticide and nitrate residue levels. This network allows the Department to evaluate the relationship between agrichemicals and ground water quality in a geographic area that is highly susceptible to contamination. The sampling of this network provides information on the fate of agrichemicals in vulnerable Florida soils and may also provide an early indication of potential future drinking water threats. The USGS currently maintains a web site on this project and is working to publish several of the findings in peer-reviewed journals.

### **Evaluation of Arsenical Herbicides**

The division continues work with the Methane Arsonic Acid Task Force to develop a ground water study protocol to evaluate the risk that arsenical herbicides pose to ground water quality. This study was requested by the Department in response to two studies associating areas of potential arsenical herbicide use and elevated ground water concentrations of arsenic. In addition, the need for a prospective study was further supported by a more controlled study demonstrating the leachability of arsenic from Monosodium Methane Arsenate (MSMA). Over this past year, staff have reviewed and provided comments on several versions of the study design and anticipate finalization of the protocol early in the 2005-2006 fiscal year.

In a related project, in the fall of 2004, division staff began working with the City of Naples and Collier County to investigate arsenic detections observed in several shallow monitor wells installed as a condition of using treated wastewater for irrigation of golf courses and city parks. During this year, the Department coordinated with staff from the City of Naples and Collier County to collect ground water samples from over 30 wells in these networks. It arranged for the samples to be analyzed for total arsenic and for the Bureau of Pesticides laboratory to analyze them for MSMA. The project has been expanded to include chemists at Florida International University, who will further speciate the forms of arsenic.

### **Thiamethoxam Ground Water Studies**

As a condition of the registration of thiamethoxam in 2001, the EPA required the registrant to conduct both a prospective and a retrospective ground water study. During this past year, the division reviewed the outcome of the prospective ground water study in Georgia and has been actively involved with the planning and performance of the retrospective ground water monitoring study in Florida. SES staff reviewed the protocol for the retrospective ground water study and oversaw the characterization of the sites, the installation of the monitoring wells, and the initial sampling.

### **Suwannee River Nitrate Project**

The division continues to provide technical and quality assurance assistance on a study examining the effect of agricultural management practices on nutrient levels in ground water in the Middle Suwannee River Basin. Staff conducted the annual field audit to assure compliance with quality assurance requirements.

### **Surface Water Protection**

#### **Pesticide Detections**

#### **in Florida Surface Water**

In the spring of 2005, the Florida Department of Environmental Protection (DEP), the Florida Department of Agriculture and Consumer Services, and the South Florida Water Management District (SFWMD) began

collaborating to design and implement a comprehensive monitoring program to investigate pesticide impacts on water quality in the Caloosahatchee River. Commencement of the monitoring study at several sample locations is expected to begin soon.

### **Collaborative studies with the University of Florida**

SES staff coauthored the manuscript "Pulsed Losses and Degradation of Aldicarb in a South Florida Agricultural Watershed" in the January edition of "Archives of Environmental Contamination and Toxicology." This study evaluated the short-



lived nature of aldicarb in a “flashy” canal system, common to the Indian River Citrus Area. In addition, Department staff and the University of Florida completed a study on the effects of herbicide bandwidths on the off-site migration of nutrients, metals and pesticides to surface water.

### **Review of Surface Water Monitoring Programs**

SES staff continues to review the results of the pesticide-monitoring network for surface water in South Florida that is managed by the South Florida Water Management District. This network regularly reports pesticide detections from several locations within the South Florida canal system and is a useful source of monitoring data for the Department.

**The Miami blue butterfly is endemic to Florida and until recently was thought to be extinct. In 2002, the Miami blue was listed as an endangered species.**

### **Fipronil Surface Water Studies**

As a condition of the registration of fipronil for fire ant control, the EPA and the Department required that the registrant conduct a runoff study and a surface water quality study to demonstrate the effectiveness of label-recommended no application zone buffers. The registrant has completed these requested studies and has provided the study reports to the Division of Agricultural Environmental Services. SES staff are reviewing the reports.

### **Golf Course BMP Manual**

In 2002, the Florida Department of Environmental Protection, a coalition of Green Industry associations, the University of Florida, and other interested parties concluded that a Best Management Practices (BMP) manual was needed that was specific to Florida golf courses and would guide golf course superintendents to make informed decisions on the use of pesticides and fertilizers to ensure the preservation of surface and ground water quality. SES staff are representing the Department on the interagency committee and will work with University of Florida to develop the chapter on Pesticide Management.

### **Endangered Species Protection Program State ESPP Plan and Pesticide County Bulletins**

The Department is awaiting approval of the five draft County Bulletins that were originally submitted to EPA and has completed first drafts of 15 more County Bulletins for southern and Central Florida for the Everglade snail kite. The Department is awaiting the finalization of the federal Endangered Species Protection Act before making further submissions of County Bulletins to EPA for review. Once the federal program is finalized, the Department is expected to submit its state ESPP plan to EPA for approval.

### **Mosquito Control and the Miami Blue Butterfly**

The Miami blue butterfly is endemic to Florida and until recently was thought to be extinct. In 2002, the Miami blue was listed by the Florida Fish and Wildlife Conservation Commission as an endangered species, and in June 2004 the U.S. Fish and Wildlife Service (USFWS) added the Miami blue to its candidate list for possible future federal listing. USFWS, however, decided that listing was not warranted at this time due, in part, to the recovery and reintroduction efforts by the University of Florida (UF) researchers. One region that the UF researchers and FWC are most interested in for reintroduction is North Key Largo. This appears to be an ideal area for the butterfly, but reintroduction efforts near these more populated areas have created potential conflicts with ongoing mosquito control programs.

In response, SES staff, at the request of the FWC, have served on the Miami blue butterfly workgroup to address issues concerning pesticide use, particularly mosquito control, and possible impacts to the Miami blue butterfly. In addition, staff have presented an overview on the Miami blue butterfly to the Pesticide Review Council in June 2005 and will introduce this issue to the Florida Coordinating Council for Mosquito Control.

### **Crop Data by County**

Department staff are currently developing a database that will link crop data for each county with pesticide usage for each crop. This linkage will be used to identify pesticides that are likely to be used within each of Florida's 67 counties. Once this data is combined with the threatened and endangered species data for each county, a list of pesticides that may impact federally listed threatened and endangered species can be derived for inclusion into pesticide County Bulletins.



## **Threatened and Endangered Species List for Florida's Counties**

SES staff have updated the federally listed threatened and endangered species for each county in Florida based on the latest occurrence data from Florida Natural Areas Inventory and the FWS field offices. This is the most current county listing of species occurrences in Florida. The list will be used in the review of Section 18 petitions to help identify species that may be exposed under proposed uses. The list will also serve as a data source for use in a database linking pesticide active ingredients, crops, and endangered species for each county in Florida.

## **Miscellaneous Quality Assurance and Quality Control (QA/QC)**

The Division of Agricultural Environmental Services continued to provide quality assistance and quality control (QA/QC) audit service to assure that field studies were conducted according to appropriate procedures. Audits were performed for the Suwannee River Water Quality Nitrate Project. In addition, the division submitted an updated Quality Management Plan (QMP) which describes the system that the Department has implemented to ensure the gathering of accurate and reliable environmental data. This plan is required by EPA every five years by any agency receiving funds for environmental monitoring. This past fiscal year, the division submitted the updated plan which was accepted by EPA.

## **SES Presentation to Region 4 Field Supervisors**

The division continues to exhibit its dedication to educating the public and agrichemical users on the prudent and effective use of pesticides. In past years, staff of AES participated in the Florida Agriculture in the Classroom program, educating high school and middle school teachers on the activities of the division. This year, the Bureau of Compliance Monitoring sponsored a workshop for Region 4 field supervisors and asked that staff of SES present the activities of the section on the second day of the workshop. Presentations were made focusing on (1) the Department's approach to protecting federally threatened and endangered species from pesticides, (2) the efforts of the Department to protect the quality of ground and surface water, and (3) the Termiticide Efficacy Rule in Florida and progress made over the past two years.

## **Pesticide Registration Section**

The Pesticide Registration Section registers pesticides that are distributed, sold or offered for sale in Florida. During the 2004-2005 fiscal year, a total of 13,183 pesticide brands were registered for sale and distribution in Florida. Approximately \$3.2 million in registration fees was collected to support the Department's pesticide programs.

Included in this total are special registration actions such as Experimental Use Permits, Special Local Need, New Active Ingredient, and Significant New Use registrations that are processed, reviewed and issued through this office. These special registrations are reviewed by the Department and other affected state agencies through the Pesticide Registration and Evaluation Committee (PREC). This consensus-determining body is responsible for evaluating pesticides, advising the Department of risks posed by registration, and proposing solutions or actions for reducing risks to acceptable levels. The Registration Section's professional staff serve as both liaison and active participants in the PREC process. This fiscal year, 28 Special Local Need registrations, 9 Experimental Use Permits, 12 Significant New Use and 20 New Active Ingredient registrations were evaluated.

Florida's diverse agricultural system, mild climate, tourism and trade activities make the state particularly susceptible to the introduction and proliferation of pests. When an emergency condition arises and there are no effective registered pesticides available to control a new pest or avert an anticipated significant economic loss due to an urgent and non-routine pest problem, the Department may submit petitions to the EPA for emergency exemptions from registration. Pest emergencies often involve introduced pest species of foreign origin, such as invasive insects, weeds and plant diseases, with the potential to inflict millions of dollars of losses in affected crops and commodities. Exemption requests frequently seek the use of new, low-risk chemicals that may actually decrease the total use of chemicals on the affected crops through their compatibility with integrated pest management programs and the elimination or reduction of repeated applications of broad-spectrum pesticides of limited efficacy.

The approval of emergency use exemptions is a critical part of the Department's efforts to assure the long-term viability of Florida's specialty crop producers and continued

economic development. The process provides important crop protection tools that maintain Florida's competitiveness in key domestic and international markets.

With the Department's technical support, the U.S. Environmental Protection Agency (EPA) issued 16 emergency exemptions for pesticide use in Florida during fiscal year 2004-2005. The Department also continued its participation in the EPA's Section 18 Pilot Program for Annual Renewal of Exemptions for reduced-risk pesticides. During the fall of 2004, the state submitted comments and suggestions for EPA consideration as it continues to promulgate the new rule.

The Department supported Florida's cotton industry with a crisis declaration to the EPA for the use of thiophanate-methyl to control the *Fusarium* fungal pest which creates a condition known as "cotton hardlock." This was the cotton industry's first request for emergency relief under FIFRA Section 18. Important exemptions were also obtained for the fungicide thiophanate-methyl, fourth year request, for control of post-bloom fruit drop and stem-end rot in citrus and thiophanate-methyl, third-year request, for white mold control in fruiting vegetables (tomato, pepper, eggplant). For the seventh year, fenbuconazole was approved by the EPA for the control of greasy spot in grapefruit. Pyriproxyfen received its fifth year of approval by EPA to assist in managing the spread of silverleaf whitefly, which transmits the Bean Golden Mosaic virus to Florida's bean crop. The Pesticide Registration Section consulted with the beekeeping industry and the Department's Division of Plant Industry in obtaining the seventh consecutive year's approval for the use of coumaphos to control the small hive beetle and varroa mite in honeybee colonies. After the documented development of coumaphos-resistant mite populations, the Department was also successful in petitioning the EPA for the use of an alternative product containing thymol for control of this devastating pest.

Florida agriculture sustained four devastating hurricanes during summer and fall of 2004. Aside from their physical damage, the hurricanes' winds transported spores of the Australasian Soybean Rust (*Phakopsora pachyrhizi*) from the tropics to Florida. To alleviate this potential threat to the state's soybean crop, Florida requested and was subsequently granted by the EPA the use of the fungicides pyraclostrobin, propiconazole, tebuconazole, myclobutanil and azoxystrobin. During the winter and spring of 2005, the state of Florida, working with the University of Tennessee,

surveyed states in support of a petition to protect specialty leguminous crops (Crop Group 6) from the same fungal disease. That quarantine petition, requesting the use of trifloxystrobin, propiconazole, tebuconazole, myclobutanil and azoxystrobin, is pending with the EPA.

During fiscal year 2004-2005, the Pesticide Registration Section successfully migrated from a legacy mainframe application to an Internet-based Oracle application to track Florida's pesticide product brand registration activities. The section completed the process of updating the 2004 product brand registration information in the new Registration Tracking System (RTS). Additional report generation software was added to the system for specific statistical information on Florida pesticide registrants. Also, financial information processing is constantly reviewed and updated as fees are linked to RTS from revenues collected by the Department's Bureau of Finance and Accounting. RTS now provides the division's pesticide enforcement program with real-time status of product brand registration information, enhancing its ability to assure compliance. The section is scheduled to continue with the training of internal headquarters staff and enforcement field staff. In the fall of 2005, it plans to announce system availability for online public access and searches of currently registered pesticide product brands in Florida.

### **Pesticide Laboratory Section**

The Department's Pesticide Laboratory analyzes a variety of official samples, including formulated pesticide products, pesticide application tank mixes, and environmental samples to support compliance investigations and environmental monitoring activities. Formulation analyses are performed in accordance with Florida Statutes for label guarantee, and tank mix sample analyses are performed to assess the use percentages of the active ingredient. A total of 175 formulation and/or tank mix samples were analyzed, requiring 5,533 sample determinations to verify whether the correct percentages of guaranteed active ingredients were within allowable tolerances. The rate of violations incurred for product formulations testing this past year was 3.8 percent, as compared to last year's violation rate of 5.1 percent. Samples included formulated material utilized by the Department in the mosquito control program after the active hurricane season; all of these samples were in compliance with specifications. A directed approach to sampling formulated products, which was developed jointly by the Pesticide Laboratory and the Bureau of Compliance Monitoring, was utilized for the

third year in order to test a wider scope of products, in a variety of categories, to ensure public safety and minimize environmental impacts. This approach has improved the Department's ability to focus on pesticide products that may not be in compliance with guarantee tolerances.

In support of registration, compliance and technical assessment activities, 751 environmental samples were analyzed, requiring 42,894 determinations. The number of environmental samples analyzed during fiscal year 2004-2005 is significantly higher than last year's total of 414 samples. The laboratory also responded to a wide variety of method development requests during the past year. Method development work for individual compounds and related analytes was conducted in various formulated



product materials and/or environmental matrices for borate, noviflumuron, pyrimethanil, acequinocyl, naled/DDVP, chlorfenapyr, thiamethoxam, and rodenticide screening.

To ensure a high quality of analysis, the laboratory analyzed 955 quality control samples, requiring 7,869 determinations. Quality assurance samples were analyzed for method development and validation as well as for control of routine sample analyses. The laboratory's technical training program continues to include quarterly in-house proficiency samples. Further, the laboratory successfully completed the 2005 AAPCO external check sample program.

The laboratory reported approximately the same total number of sample determinations during fiscal year 2004-2005 (56,296) as were reported for fiscal year 2003-2004

(52,933). The total number of samples analyzed during fiscal year 2004-2005 (1,881) was also approximately the same as during fiscal year 2003-2004 (1,964).

Finally, the laboratory fully implemented its Laboratory Information Management System (LIMS) over the course of fiscal year 2004-2005. This automated electronic sample processing software allows the laboratory to navigate and track all sample analysis activities, further enhancing the overall quality and efficiency of data generated for the laboratory's customers.

### **Pesticide Certification and Licensing**

The Pesticide Certification and Licensing Program helps ensure a safe food supply, healthy environment, and the protection of workers and the public through training and competency testing of pesticide users. This program is coordinated with the U.S. Environmental Protection Agency (EPA) and the University of Florida (UF) to ensure consistency in educational efforts and certification standards. EPA has approved the Department's program as meeting federal pesticide applicator certification requirements, and EPA staff provides limited guidance and program assistance as needed. UF assists by developing training manuals and certification exams, providing training classes and workshops, and administering the majority of the certification exams.

In fiscal year 2004-2005, the Department issued or renewed 2,855 pesticide applicator licenses and 435 pesticide dealer licenses. The total number of active licenses as of June 30, 2005, was 11,922. Department staff approved 714 pesticide training programs to issue continuing education units (CEUs) for pesticide applicator recertification and license renewal, making available 2,773 CEUs for license renewal. An online CEU Class Search is available to help pesticide applicators locate training opportunities that provide CEUs. Department staff also monitored 68 hours of training classes throughout the state and gave 11 presentations on pesticide laws and regulations, licensing requirements, and procedures relevant to pesticide use.

### **Aldicarb Permit Program**

The Aldicarb Permit Program tracks the use of the restricted use pesticide aldicarb (Temik) in Florida to ensure protection of ground water from contamination with aldicarb residues. All uses of aldicarb must be approved prior to application,



and soil type and wells must be identified for each application site before permits are issued. In fiscal year 2004-2005, the Department issued permits for aldicarb to be applied to 3,580 sites in Florida, which included 334,404 acres of citrus, 32,024 acres of potatoes, 30,888 acres of peanuts, and 19,734 acres of cotton. Permit applications may be submitted online at [www.temikpermit.com](http://www.temikpermit.com) or by fax or mail. Information about the aldicarb program and permit applications are available on the Department web site [www.flaes.org](http://www.flaes.org).

### **Aircraft Registration Program**

The Department administers a registration program for aircraft used to apply or dispense pesticides, fertilizer and seed. Aircraft owners/operators are required to register all aircraft used and must also report to the Department all sales, purchases, leases and other transactions involving these aircraft.

As of June 30, 2005, there were 136 aircraft registered. The number registered to apply each of the following products is as follows:

- ▼ 94 public health pesticides
- ▼ 56 agricultural pesticides
- ▼ 32 fertilizer
- ▼ 27 seed

In addition, 14 aircraft are voluntarily registered to apply oral rabies vaccine baits, and three are registered to apply burn agents to assist with fire control.

### **Worker Protection Program**

The Department uses a multifaceted approach to protect agricultural workers from pesticide hazards. Certification and licensing are required of individuals who use restricted-use pesticides to ensure they are aware of pesticide safety requirements and are competent to use pesticides properly. Since the inception of the program, the Department has certified and licensed 7,299 individuals to use restricted use pesticides in agricultural sites, and there are currently over 11,000 individuals licensed. Also, licensed pesticide applicators are required to train their unlicensed assistants on pesticide safety before restricted-use pesticides are handled.

The Department enforces the federal Worker Protection Standard (WPS) in Florida. The WPS requires pesticide safety training for all agricultural pesticide handlers and agricultural workers who work at agricultural sites where pesticides have been applied in the last 30 days. The training must include information on how pesticides enter the body and how to prevent pesticide exposure. Since the inception of the program, 1,266 individuals have been certified to conduct WPS pesticide safety training. A total of 48,248 EPA worker cards and 5,852 EPA handler cards have been issued to certified trainers to issue to individuals they train. The EPA card system is voluntary and the numbers do not represent the total number of individuals trained.

The Florida Agricultural Worker Safety Act (FAWSA) is also enforced by the Department and requires agricultural



employers to provide a fact sheet or Material Safety Data Sheet (MSDS) to agricultural workers upon request so workers will know the hazards of pesticides they may be exposed to in the workplace. Under FAWSA requirements, the Department also makes available a pesticide safety sheet in English, Spanish and Creole/Haitian with illustrated instructions on preventing pesticide exposure and a toll-free telephone number for the Florida Poison Control Centers. To date, over 37,000 pesticide safety sheets have been distributed by the Department to assist pesticide safety trainers. The safety sheet can also be downloaded from the Department's web site at [www.flaes.org/complimonitoring/workersafety/index.html](http://www.flaes.org/complimonitoring/workersafety/index.html).

In addition, the Department conducted 330 Worker Protection Standard (WPS) inspections at farms, forests, nurseries and greenhouses during the 2004-2005 fiscal year. One-hundred twenty-four, or 38 percent, of these inspections identified violations of the Worker Protection Standard, and a total of 301 violations were identified for the year. Also, in 2004, the Department adopted the Federal Worker Protection Standard as Rule 5E-2.039, Florida Administrative Code, under the Florida Pesticide Law (Chapter 487, F.S.).

In addition to enforcing the worker protection standards set out under state and federal law, the Department conducts education and outreach programs for agricultural workers. Sessions are conducted to educate workers about pesticides, and a bilingual outreach educator is available to meet with workers as needed. In addition, the Department conducts "train the trainer" programs in order to reach more workers through the help of other workers and worker organizations.

The Department strongly encourages workers to seek immediate medical attention if they believe they have been harmed by pesticides while working. Workers are also encouraged to promptly report exposure incidences or potential violations of the WPS to the Department for investigation and response. Under the WPS, workers must be notified about treated areas so they may avoid inadvertent exposures; handlers and workers must be supplied water, soap and towels for routine washing and emergency decontamination; transportation must be made available to a medical care facility if a worker or handler may have been poisoned or injured; and information must be provided about the pesticide to which the worker may

have been exposed. Additionally, personal protective equipment must be provided and maintained for handlers and early-entry workers; safety training is required for all workers and handlers; a pesticide safety poster must be displayed; handlers and workers must be informed of pesticide label requirements; and central posting of recent pesticide applications must be displayed.

### **Pesticides**

The Pesticide Compliance Section helps ensure that pesticides are used correctly and according to the Rules and Laws developed to protect consumers, the environment and the food supply. During the 2004-2005 fiscal year, a total of 270 specific complaints, tips and allegations were investigated. Samples were collected of various pesticides to assure that they were formulated correctly and contained precisely what their labels guaranteed. Allegations concerning pesticides drifting from a targeted area onto other non-target areas were investigated, and samples of soil, water and vegetation were collected from the areas in question and analyzed. Fish, bird and animal deaths allegedly caused by pesticides were investigated. Claims of pesticide exposure were investigated including claims of pesticide exposure to farmworkers. Section staff worked to ensure that the Worker Protection Standard was followed on various agricultural establishments throughout the state. Investigations were also conducted to ensure that pesticides imported into Florida were properly registered and allowed to be used. Additionally, staff checked on the production of wood treated with Chromated Copper Arsonate (CCA). The Pesticide Bureau, coordinating with the Florida Department of Environmental Protection, also helped implement "Operation Cleansweep," a mobile pesticide collection program that provides a safe way to dispose of cancelled, suspended and unusable pesticides at no cost.

For the 2004-2005 fiscal year, the Department conducted 1,394 pesticide inspections at agricultural, non-agricultural and product-related establishments. Two-hundred and fifteen, or 15 percent, of these inspections identified violations of the Florida Pesticide Law and a total of 397 violations were identified for the year. The Department issued 224 enforcement actions regarding these violations, 28 of which were administrative fines. The Department assessed \$36,225 in fines and collected \$35,215 in fine money during the 2004-2005 fiscal year.

Some of the more common violations identified during the inspection process include violations of the Worker Protection Standard (301), lack of personal protective equipment (48), unregistered pesticides (35), misbranded pesticides (33), incomplete applicator records (29), restricted use/purchase violations (21), and pesticide drift (10).

### **Pest Control Section**

The Pest Control Section investigated 628 formal consumer complaints and conducted 5,011 licensed business inspections. Enforcement activities resulted in the issuance of 220 enforcement actions and the imposition of \$32,650 in fines. The Bureau of Entomology and Pest Control issued or renewed 3,975 business licenses, 6,610 certified operator's certificates, 28,185 employee identification cards, and 2,314 limited governmental/private and limited lawn maintenance certificates. Certification examinations were administered to 2,054 applicants. The bureau continued efforts to improve compliance with requirements in several sectors of the pest control industry. Continued efforts in fumigation safety, preventative treatments for new construction, and compliance with the commercial landscape maintenance industry were areas in which the bureau focused its resources. In addition, an increased focus on wood-destroying organism inspections and illegal pest control operators helped to strengthen the bureau's enforcement program. The bureau also developed innovative neutral scheme inspection techniques to ascertain the quality of wood-destroying organism inspections and preventative treatments for new construction performed in the industry. More in-depth review of licensee operation inspections on industry business practices are expected for the coming fiscal year.

### **Mosquito Control Section**

The Department held three meetings of the Florida Coordinating Council on Mosquito Control during fiscal year 2004-2005; some of the issues considered included use of Permethrin for aerial application, establishment of the Miami Blue butterfly in the Florida Keys, the state's West Nile Virus response plan, research priorities, enforcement policy, and consumer assistance. Last year's hurricanes prompted the development of a Division Incident Response Team to respond to emergency mosquito control needs.

There were 11 Public Health Pest Control certification training sessions provided, and 130 certificates were issued or renewed. New Aerial Public Health Pest Control certificates were issued to 14 applicators and renewed for 30 applicators. Active licenses for the Section include 1,542 Public Health Pest Control certified applicators and 148 Aerial Public Health applicators. The Department awarded \$2,125,000 in mosquito control aid to the districts in fiscal year 2004-2005, and allocated \$250,000 for mosquito control research through the competitive grants program.

### **Operational Support – Dog Fly Program**

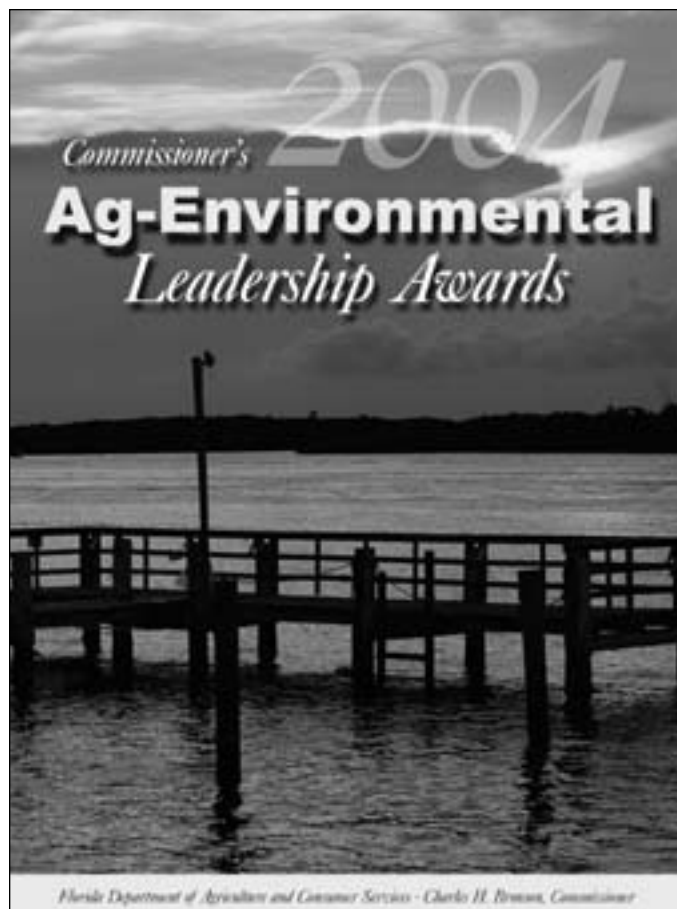
Operational Support completed 54 inspections and investigated five complaints regarding mosquito control activities, which resulted in the issuance of two enforcement actions and six advisory notices. During the reporting period, eight dog fly control missions were conducted, covering 18,087 acres and applying 93.2 gallons of pesticide (Dibrom). In addition, 15 mosquito control missions were conducted, treating a total of 489,059 acres for mosquitoes.

### **Mosquito Control Incident Response Team**

In 2004, Hurricanes Charley, Frances, Ivan and Jeanne struck Florida causing stagnant water accumulation in many locations after the storm. Mosquito eggs that had been dormant hatched within a week, causing an incredible surge in mosquito populations throughout the state, with single-night mosquito trap catches of 1,000 to 100,000. Prior to and after the hurricane, state/local public health officials had issued medical alerts regarding encephalitis and other arbovirus disease risk. The division activated a Mosquito Control Incident Response Team (MCIRT) which was in place and began aerial mosquito control treatments five days after landfall of Hurricane Charley. Over the following four months, a total of 8,004,605 acres in 23 counties were treated. A total of 41 division personnel participated in this team.

### **Commissioner's Agricultural Environmental Leadership Awards Program**

The 11th annual Commissioner's Agricultural-Environmental Leadership Awards were presented to three Florida agricultural operations in recognition of their leadership in promoting progressive environmental practices.



The presentation took place at the Florida Farm Bureau's annual meeting in Orlando on October 22, 2004.

Three winners were selected from the group of finalists by a selection committee made up of representatives from: the Nature Conservancy; the state's Water Management Districts; the Florida Farm Bureau; the Florida Cattlemen's Association; the Florida Dairy Association; the Florida Department of Environmental Protection; the Florida Nursery, Growers and Landscape Association; the Florida Fruit and Vegetable Association; Florida Citrus Mutual; and the Florida Forestry Association. The 2004 winners were:

▼ Garvie Hall, owner of Blue Heron Groves, in Lakeland, who has been in agriculture since 1957. Hall has demonstrated the beneficial balance that effectively serves the needs of agriculture, local communities and the environment. Through improved irrigation systems, he was able to save millions of gallons of water each year while optimizing his yields through the availability of good quality water.

▼ Dale McClellan of M&B Products, Inc., in Tampa. McClellan has built an economically viable dairy that exceeds anticipated future regulatory requirements and serves as a state-of-the-art model for environmentally friendly dairy farms in Florida.

▼ Stan Carter, manager, McArthur Farms, Inc., Citrus Division, in Port St. Lucie. Carter chaired the Indian River Citrus League's Production Committee and took it upon himself to address the water quality issues facing the St. Lucie River Estuary. The committee, in conjunction with the Florida Department of Agriculture and Consumer Services, the South Florida Water Management District and the University of Florida, took the initiative to develop Best Management Practices (BMPs) for the area's citrus growers. Under his leadership, the committee negotiated BMPs that enabled growers to improve water quality and reduce runoff into the St. Lucie Estuary and the Indian River Lagoon.

## Forestry Programs

### Wildfires

There was a decrease in the number of wildfires from the previous fiscal year. There were 2,365 wildfires in fiscal year 2004-2005, compared to 3,429 in fiscal year 2003-2004. Human-caused wildfires also decreased with fiscal year 2004-2005 having 1,989, compared to 2,599 in fiscal year 2003-2004. The decrease in fire activity can be attributed to the Division of Forestry's statewide wildfire prevention campaign as well as above-average rainfall throughout the state over the previous year. Much of that rainfall came from four major hurricanes. The leading cause of wildfires for fiscal year 2004-2005 was debris burning, accounting for 749.

The Division of Forestry provided the management structure and resources necessary to bring humanitarian aid and emergency services to the citizens of Florida impacted by the devastating results of the hurricanes of 2004. The division carried out leadership roles throughout the state, and all four of the division's State Type 1 Incident Management Teams (IMTs) were deployed several times.

Missions included: managing county Emergency Operation Centers (EOCs); assisting the state EOC's Emergency Support Functions; managing Logistical Staging Areas, Damage Assessment Teams, Distribution Centers, and Emergency Support Function (ESF 11 – Food, Water and Ice); managing



### Forest Protection

Division of Forestry personnel made 3,491 media contacts as part of this year's wildfire prevention campaign. The emphasis of this year's campaign was "Know The Law Before You Burn" and the increased post-hurricane wildfire hazard. Six Wildfire Mitigation Specialists prepared 104 news releases for local newspapers on wildfire prevention issues and the value of prescribed burning as a tool for hazardous fuel reduction.

A 30-second and a 60-second radio spot were produced as

part of the division's statewide wildfire prevention education program. The public service announcement encouraged listeners to "Know The Law Before You Burn" and to "Take Measures To Protect Your Home From Wildfires." The radio spots were broadcasted six times each week for 11 weeks on 58 affiliate stations during the peak of Florida's wildfire season and reached an estimated 3 million people.

A 28-minute film documentary entitled "Living on the Edge in Florida" was produced with National Fire Plan grant funds. The documentary which focuses on the wildland/urban interface fire problem in Florida aired statewide on Florida Public Television's "Florida Crossroads" program. Copies of the film documentary were replicated in VHS and on DVD for use in public education programs.

Forestry District and Center personnel used the division's "Living on the Edge in Florida" and "How to Have a Firewise Home" CD-ROMs to conduct nine Firewise workshops for community leaders and 11 homeowner association workshops.

The educational CDs and companion teacher's guides were provided free to Florida teachers (grades 4-12) through the Florida Agriculture in the Classroom program. In addition, 560 copies were provided to the State Library System for distribution to libraries throughout the state.

#### There were numerous responses in other counties that were handled by local Division of Forestry resources or Type 3 Incident Management Teams:

Event	Personnel assigned
Hurricane Charley .....	489
Hurricane Frances .....	347
Hurricane Ivan .....	456
Hurricane Jeanne .....	202
Total.....	1,494 *

*\* Some employees were on multiple assignments; this number does not include local/home district response.*



Four existing Firewise Communities were recertified for 2005, and six additional Florida Communities met the requirements to be recognized as a Firewise Community/USA by the national Firewise organization.

#### The new Firewise Communities are:

Placid Lakes .....	Highlands County
Caloosa .....	Palm Beach County
Cypress Knoll.....	Flagler County
Muse .....	Hendry County
River Camps on Crooked Creek.....	Bay County
Pioneer Plantation .....	Hendry County

Smokey Bear celebrated his 60th birthday on August 9, 2004, and the Division of Forestry hosted a birthday card contest to raise public awareness of Smokey's wildfire safety message. Smokey received over 200 birthday cards from children throughout the state. Four regional winners were chosen.

Blackwater Forestry Center received the prestigious Bronze Smokey Bear Award for its outstanding efforts in wildfire prevention. Center employees hosted a 60th birthday party for Smokey Bear involving over 50 local, state and federal agencies. Only 10 Bronze Smokey Bear awards are given out nationally each year.

Portions of the wildfire prevention campaign included the use of billboards and movie theater advertising. The three different messages used included: Smokey Bear and his message "Only You Can Prevent Wildfires;" "Think Before You Burn," which focused on the issues of escaped debris burning; and "Hurricane Debris = Wildfire Fuel," which focused on the wildfire danger that exists from large amounts of debris left over from the 2004 hurricane season. These messages were used statewide on 20 billboards that were leased for a two-month period and in movie theater ads that played on 290 screens before each movie for a six-week period.

The division held its fourth Wildland Fire Training Conference, where 204 volunteer fire department personnel participated in 17 Incident Command System (ICS) courses over a three-day period.

The Department administered the Volunteer Fire Assistance Grant Program to volunteer fire departments that served rural communities with a population of 10,000 or less. Approximately \$266,901 was awarded to 106 fire departments. This was a 50 percent matching fund, which enabled the fire departments to purchase approximately \$533,802 of equipment and supplies. Due to the hurricanes of 2004, a hurricane supplemental grant will be awarded in 2005 that will significantly increase the funds available to volunteer fire departments in 2005.

The division screened \$8.5 million worth of federal excess property to support its fire program. Approximately \$5 million was in aircraft and aircraft parts.

This year, the Division of Forestry implemented a very effective Prescribed Fire Educational Campaign. The campaign included billboards, television and radio. Two video and two radio public service announcements were

**The Division of Forestry manages  
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premiered at the Prescribed Fire Awareness Week press conference in March 2005. During the one-year run, the television PSAs aired nearly 4,000 times and the radio PSAs aired just over 7,000 times across Florida. In addition, 17 billboards went up around the state in March 2005.

The Forestry Arson Alert Association donated 11 new Smokey Bear costumes to Division of Forestry field units. These costumes will be used in school programs, parades and other events to promote Smokey Bear and the division's wildfire prevention program.

### Fire in Florida's Ecosystems

The Department continues to promote the Fire in Florida's Ecosystems program, which provides fire ecology and prescribed fire instructional materials to educators. The hands-on activities are designed to help prepare students in fourth through 10th grade for standardized testing. The past year, more than 300 teachers were trained to use the program as part of their curriculum. Each teacher was trained to use the educators' guide, student workbook, videos and posters, other supplemental materials, and the interactive "Burning Issues" CD-ROM.

### Natural Resource Management

The Division of Forestry manages natural resources by acquiring land, providing technical assistance to private landowners, and operating programs on state forests and other state lands. The division employs multiple-use principles

During the fiscal year, the state of Florida and the U.S. Forest Service completed the long-term land and mineral exchange. The state now has all mineral interests under Blackwater River and Withlacoochee State Forests. Land acquisition closings through the Division Additions and Inholdings Program of Florida Forever totaled 6,410 acres at a value of \$9,750,334. A total of 16,956 acres was added to the state forest system during the year under Florida's Conservation Land Acquisition Programs. All of these lands are managed to provide as many compatible uses and benefits to the public as possible while still providing protection for threatened or endangered species of plants and animals. Public recreational opportunities on these lands include fishing, hunting, hiking, picnicking, canoeing, camping, swimming, bird watching, bicycling and horseback riding. Approximately 635,971 visitors participated in these activities during the year.

The management of state forests generated revenues of approximately \$9.37 million during the year, with an estimated \$8.07 million coming from the sale of timber and the remainder coming from other state forest income, including recreation fees charged by the division. The division pays 15 percent of the revenue from state forest operations to the counties in which these forests are located. The revenue returned to counties for fiscal year 2003-2004 was \$856,514. It is anticipated that approximately \$1,406,029 will be returned to counties for fiscal year 2004-2005. There are substantial direct and indirect benefits provided to local governments from the management of these lands.



to ensure a sustained healthy forest for 993,885 acres on 32 state forests. The most current scientific knowledge is used to ensure good stewardship and the practice of silviculture based on sound ecological principles. The division supports other state agencies as a cooperating manager on 275,000 acres and assists management on an additional 475,000 acres of public forests through special agreements with such public entities as the Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, Water Management Districts and various counties.

### Technical Assistance

The division provides technical assistance to help private landowners and communities make intelligent decisions to develop and achieve their objectives in forest land management. During the 2004-2005 fiscal year, the Forest Land Enhancement Program (FLEP), which is part of the 2002 Farm Bill, was awarded a total of \$769,196.98 in cost-share money to non-industrial private forest landowners to help them implement forest management activities on their



property. This cost-share amount reached a total of 268 landowners on 18,445 acres throughout the state.

Florida's Forest Stewardship Program is part of a national initiative to encourage private forest landowners to manage their properties for multiple use. Through the division's leadership, 125 forest stewardship plans were completed on 29,526 acres, and 63 landowners were certified as implementing forest management practices in the Forest Stewardship plans during the year.

This year, the division will also be providing, through the USDA Forest Service's Forest Land Recovery Program, \$6 million to private landowners who suffered damage to their timberlands in the 2004 hurricane season.

The division's Andrews Nursery produced and sold 5.3 million bare root pine seedlings and 2.9 million containerized pine and wiregrass seedlings to 538 Florida customers. This produced more than \$521,317.00 in revenue.

The Department awarded \$1.1 million in federal urban and community forestry grants to a total of 91 nonprofit organizations, local governments and educational

institutions to enhance their ability to carry out effective urban forest management programs in their respective communities. This year, the division will also be awarding \$13.5 million in urban and community grants to nonprofit organizations, local governments, and educational institutions that received damage during the 2004 hurricane season.

### **Hydrology**

The Division of Forestry is responsible for development, implementation and monitoring of Silviculture Best Management Practices (BMPs) that protect the state's water resources, and for implementing hydrologic and wetland restoration on State Forests.

The division significantly revised the state's silviculture BMP Manual to incorporate new research information on cypress regeneration and wetland timber harvesting, and new practices related to forest fertilization. As a result, a new BMP Manual was printed and distributed, and over 40 workshops were held throughout the state to inform landowners, loggers and foresters of the changes. Over 1,350 individuals participated in these training sessions.

In addition, the Division of Forestry continued to solicit participation by forest landowners in Florida's Administrative Rule 5I-6, which provides additional incentives to comply with forestry BMPs. These incentives include property rights protection under Florida's Right to Farm Act, and a presumption of compliance with state water quality standards where BMPs are followed. Rule 5I-6 became effective on February 11, 2004, with over 6,500 individual tracts totaling 4.5 million acres of forestland enrolled in the program through the end of the fiscal year.

Despite significant damage from an unusually active hurricane season in 2004, the division continued its wetland restoration efforts on state forests. Most of these efforts were implemented with the cooperation and assistance of other state and federal agencies.

During the 2004-2005 fiscal year, five restoration projects were completed on four different state forests. These projects enhanced or restored a total of 9,750 acres of historically altered wetlands at a total cost of \$395,000. The division's share of the restoration costs amounted to approximately \$15,000, or 4 percent of the total; the balance was funded through Water Management Districts' restoration and mitigation programs.

Since 2002, 13,760 wetland acres on 10 state forests have been restored through the completion of 17 restoration projects. Total expenditure for all projects to date is approximately \$648,000, of which the division's share is \$64,600, or roughly 10 percent. Eight of these completed projects are being monitored for effectiveness.

Currently, the division has six active restoration projects on five forests and five additional projects in the planning stage, including an initiative through the Florida Department of Environmental Protection and the Collier County Soil and Water Conservation District to establish a Regional Off-site Mitigation Area (ROMA) on Picayune Strand State Forest for single family residential units.

### Field Operations

The division's forestry programs are implemented by Field Operations staff located in the state's 15 field units and the Tallahassee state office. The field units are grouped into four regions, each under a Deputy Chief of Field Operations. The multifunctional workforce of personnel and equipment provides a responsive and comprehensive approach to land management and wildfire control statewide.

## Forest Resource Planning and Support Services

The Bureau of Forest Resource Planning and Support Services provides support to all bureaus within the Division of Forestry. Sections include technical and professional staff to address issues in Information Technology, Construction, Equipment/Telecommunication, and Planning and Information.

### Information Technology

The Forestry Information Technology (IT) section supports microcomputers, applications, Geographic Information Systems (GIS), and Global Positioning Systems (GPS) for the Division of Forestry throughout the state. Related functions include: hardware and software acquisition; installation and maintenance; intranet/internet web page management; application development and maintenance; ongoing upgrading of computer networks; and spatial analyses in support of state lands management and wildland fire protection.

During fiscal year 2004-2005, the primary tasks for the section focused on production support for the Fire Management Information System (FMIS), redesign of the Time Allocation and Accomplishments Reporting System (TAARS), redesign of the division's Internet web page, development and release of the Volunteer Tracking System (VOLT), development and release of the Best Management Practices (BMP) System, and desktop and GIS support for incident response.

During fiscal year 2004-2005, all forestry staff was introduced to one or more of the division's internal web-based applications by year's end. The major applications (FMIS, TAARS, VOLT, BMP) collect data from the appropriate staff, whose access is protected with network and database security measures. Consolidated informational reports are then available statewide for the knowledge of management and other interested staff. FMIS application users received instructor-led software usage training from a joint group of Forest Protection and IT staff traveling around the state. TAARS, a pay-period time and activity entry application was released for statewide use after a core group participated in Beta testing and response re-programming. The program has received hundreds of compliments on its user-friendly format and use. BMP application provides an electronic data entry format for survey input by the field staff, with a data-





download component available for state office hydrology staff analysis. The VOLT application provides a web screen for volunteer coordinators to enter the number of hours donated by Division of Forestry volunteers.

The GIS section assisted in hurricane mapping support and the development of national wildland fire incident support mapping standards. GIS and GPS technology continues to be emphasized among field units and forestry program areas while web mapping opportunities are explored. A public web-based interface to the Fire Risk Assessment System (FRAS) results was also completed.

Other projects involved the purchase of 155 new computers, and desktop software updates to guard against viruses, security threats and spyware. Field offices are being supplied with broadband services (i.e., DSL or cable modem) to provide faster access to email, People First, Internet and other Department applications.

### **Equipment/Telecommunication**

The Bureau of Forest Resource Planning and Support Services has statewide responsibility for administration of fleet management and telecommunications systems. The bureau purchases, manages and maintains all fire fighting/suppression vehicles and land management equipment for the Division of Forestry.

In fiscal year 2004-2005, the Division of Forestry's motor vehicle budget was \$5,756,000, and on April 17, 2005, the division received supplemental hurricane relief in the amount of \$3,675,000 for a total of \$9,431,000. This budget was used to meet critical firefighting and land management replacement motor vehicles needs.

#### **Replacement vehicles purchased included:**

22	medium dozers
7	heavy dozers
27	transport trucks
8	engines
9	road tractors and lowboys
3	positrack carriers with mowing heads
9	wheel tractors with guard packages and brown tree cutters
2	dump trucks
1	motor grader
1	Bombardier, three-wheel tractor with loader
1	four-wheel-drive front-end loader
2	mechanics trucks
42	pickup trucks
13	utility vehicles

These motor vehicles will receive custom fabrication to meet firefighting and land management specific requirements at the division's Lake City Central Shop.

The division uses a land mobile radio system currently based on telephone/radio control lines. Research was conducted in 2004-2005 to analyze the system design and components to provide greater efficiency. Testing is being conducted on various types of improvements to the system in five field districts to ensure continuity of operations in all phases of forestry work.

### **Construction**

The Construction Section provides critical planning for, and oversight of, the division's fixed capital improvement, construction and maintenance programs. This section



ensures that the division's facilities can support its firefighting and forest management missions through the construction of new facilities and the inspection and maintenance of existing facilities. During fiscal year 2004-2005, an estimated 20,000 square feet of building space was constructed at a cost of approximately \$2.2 million. A typical project is the new John Bethea State Forest headquarters facility completed in 2005 at a cost of \$720,000. The complex, located in Baker County, currently consists of an administrative building, with a shop and equipment shed scheduled to be completed in December 2005. The new facility improves the division's capabilities for firefighting, forest management and access to the state forest.

### **Safety - Workers' Compensation**

The Division of Forestry provided workers' compensation coverage to 1,280 full-time workers for the fiscal year 2004-2005 reporting period.

There was a 7 percent decrease in the number of accidents/injuries and a 22 percent reduction in the number of lost days of work during the same time frame.

The reorganization of the division's safety committee provides a structure to ensure the best communication of statewide safety issues. A proactive approach includes identification cards with a contact number for CorVel, the managed-care provider, with instructions for reporting

an injury; Workers' Comp information brochures for new employees; and an annual meeting of all workers' compensation liaisons from each unit.

### **Forestry Youth Academy**

The Division of Forestry's Youth Academy in the Goethe State Forest in Levy County provides a life-changing experience for juvenile offenders that will transform them into productive citizens.

The Forestry Youth Academy is a low-risk residential program for youthful offenders aged 15 to 19. It was established in 1996, through a joint agreement between the Division of Forestry, the Florida Department of Juvenile



## The Division of Forestry's **Youth Academy** in the Goethe State Forest in Levy County provides a life-changing experience for juvenile offenders that will transform them into productive citizens.

Justice, and the Levy County School Board. Residents receive academic and vocational training and learn important social and life skills. They are taught discipline and teamwork and have the opportunity to develop positive values and a sense of personal responsibility. Hands-on training is available in such areas as building and maintenance, heavy equipment operation, small gas engine repair, welding, culinary arts, agriculture, pest control, chainsaw operation and firefighting.

When students graduate from the Forestry Youth Academy, they leave with a high school diploma or enough credits to place them back in their appropriate grade level. They also earn two vocational certifications.

In March 2005, the Forestry Youth Academy received its first "Deemed" rating from the Florida Department of Juvenile Justice for providing exemplary care to the youth housed within the program.

### **Training** **Florida Center for Wildfire and Forest Resources Management Training**

2005 marked the seventh year of operation for the Florida Center for Wildlife and Forest Resources Management Training in Brooksville. The center provides classes of Basic Fire Control Training twice annually. This year, 53 new candidates received certification as Wildland Firefighters in Florida.

The center provided 74 additional training courses in the fiscal year, 43 of these for standard National Wildfire Coordinating Group (NWCG) training. There were also courses in Domestic Preparedness, Leadership, Health and Safety, and Natural Resource Management. These courses were attended by 1,261 Division of Forestry

employees and 712 non-division (cooperator) students. The courses provided 34,456 person/hours of training for DOF personnel and 12,356 person/hours for cooperators. The training center assisted the division's districts to offer more than 100 NWCG courses during the same time period.

The center also coordinated 16 different courses and workshops at the Wildland

Fire Conference in Ocala in April 2005. A total of 746 students attended these classes in 29 separate sessions.

Assistance was provided to 284 DOF employees to accommodate computer class training through New Horizons and Software Solutions.









# SAFEGUARDING

## Florida's Consumers

**Division of Consumer Services:** During fiscal year 2004-2005, the Division of Consumer Services provided consumer information, processed complaints and promoted consumer protection. During this period, the division processed 32,166 written complaints; answered 310,495 calls; and provided 532,985 brochures, pamphlets and booklets for distribution to consumers.

The division increased public awareness of consumer topics by providing speakers to civic groups and organizations throughout the state. The speakers provide information on important consumer-related topics, answer questions on current frauds and scams, and provide educational materials on a variety of topics. In addition, the division utilizes its web site [www.800helpfla.com](http://www.800helpfla.com) to educate consumers and businesses. During fiscal year 2004-2005, the web site received a total of 1,482,850 web visits. Consumers can obtain information concerning the many areas the Department regulates and find out what their rights are under these laws. Consumers also learn how to file complaints to have their disputes resolved.

Businesses have access to licensing and registration information, as well as the forms necessary to comply with applicable regulations. The Department also functions as the U.S. Consumer Product Safety Commission's liaison in Florida regarding product recalls, inspections and investigations.



### Call Center

The Call Center's staff maintains and operates the Department's toll-free consumer hotline, 1-800-HELPFLA (1-800-435-7352), and the Spanish hotline, 1-800-FLAYUDA (1-800-352-9832). Call Center personnel track and analyze data to provide

current information to callers. During fiscal year 2004-2005, Call Center staff provided 337,852 assists to consumers and businesses by providing brochures, complaint forms and registration forms. Eighty-two percent of callers responding to surveys ranked the Call Center's service as outstanding.

The Call Center assists individuals daily with consumer-related issues, providing up-to-date information or transferring callers to the appropriate governmental agency. Consumer questions cover various areas the Department regulates, such as business opportunities, dance studios, game promotions, health studios, intrastate moving, motor vehicle repair, Florida's Do Not Call program, pawn shops, sellers of travel, solicitation of charitable contributions,

telemarketing and the motor vehicle Lemon Law. Call Center analysts also respond to inquiries on a multitude of subjects that are not regulated, such as landlord/tenant issues, buying clubs, and retail store regulations. Staff utilizes the Department's computer database to develop statistical information on the frequency and type of calls received. Each call is logged under a specific subject

## The Department administers the **Florida New Motor Vehicle Warranty Enforcement Act**, commonly known as the “**Lemon Law.**”

category in the database, which allows the Department to track the most prevalent consumer issues. This record enables consumer education efforts to be tailored to the specific needs of the public.

As a result of the hurricanes that affected Florida in 2004, the Call Center converted to a price-gouging line. The Call Center responded to over 6,500 consumers seeking information and assistance due to the disasters.

### **Consumer Complaints**

The Bureau of Mediation and Enforcement processes all consumer complaints filed with the Division of Consumer Services. Complaints are received online and via mail, and deal with a variety of subjects. Division staff attempt to resolve disputes through informal mediation, and they review complaints for compliance with applicable laws. The top five complaint categories during fiscal year 2004-2005 were: travel and vacations plans, telephone sales solicitations (Do Not Call), price-gouging, motor vehicle repair, and communications. During fiscal year 2004-2005, staff processed 16,154 complaints filed against entities regulated by the division and recovered \$3,127,188 in money and property for consumers. In addition, another 16,012 complaints filed against non-regulated businesses were processed, which resulted in \$1,236,061 in refunds to consumers. The division also assisted in recovering an additional \$140,298 in consumer refunds from security

instruments (bonds, letters of credit or certificate of deposits) filed with the Department for the protection of consumers from a breach of contract.

### **New Motor Vehicle Lemon Law**

The Department administers the Florida New Motor Vehicle Warranty Enforcement Act, commonly known as the “Lemon Law.” Personnel respond to consumer complaints and inquiries, provide information about the Lemon Law, and determine whether claims are potentially eligible for state arbitration before the Florida New Motor Vehicle Arbitration Board.

The Department also provides certification to motor vehicle manufacturers who establish informal dispute settlement procedures in compliance with applicable federal and state statutes. In fiscal year 2004-2005, the Department re-certified informal dispute settlement procedures for General Motors, Honda/Acura, Lexus, Nissan/Infinity, Rolls Royce, Bentley, Saab, Volkswagen/Audi, American General/Hummer, Isuzu, Hyundai, Kia Motors, Saturn and Workhorse Custom Chassis, and certified a new procedure for Ford Motor Company. These manufacturers utilize the Better Business Bureau Autoline program. Porsche and Toyota were also re-certified. These manufacturers utilize the National Center for Dispute Settlement program. Each of these programs is audited throughout the year for compliance.

During fiscal year 2004-2005, the division answered 21,390 telephone calls on the Lemon Law hotline, 1-800-321-5366. The division also processed 1,227 requests for state arbitration and approved 1,114 of these for referral to the Attorney General's office. In addition, division staff reviewed 3,640 consumer cases that were processed through the manufacturers' informal dispute settlement programs.

### **Regulated Programs**

The Department is responsible for regulating a variety of industries operating in Florida, including business opportunities, dance studios, game promotions/sweepstakes, health studios, intrastate moving, motor vehicle repair shops, Florida's Do Not Call program, pawn shops, sellers of travel, solicitation of contributions, and telemarketing. These programs are designed to protect consumers and the integrity of each industry. Industry members must submit a registration/license application or similar filing and, in some cases, a surety bond, certificate of deposit, or letter of credit to ensure consumer refunds in the event a business defaults.

### Business Opportunities

The Business Opportunities Program requires individuals who sell or lease any products, supplies or services for the purpose of starting a business to register and disclose certain information to prospective purchasers. Some sellers must also submit a \$50,000 surety bond, certificate of deposit, or letter of credit. In fiscal year 2004-2005, the Department registered 1,708 sellers of business opportunities, processed 1,334 written complaints, recovered \$243,751 in consumer refunds, and collected \$67,000 in administrative fines.

### Dance Studios

The Dance Studio Program requires all ballroom dance studios to register with the Department. In some instances, registrants are required to post a surety bond, certificate of deposit, or letter of credit. For fiscal year 2004-2005, the Department registered 151 dance studios, processed 30 written complaints, recovered \$14,794 in consumer refunds, and collected \$5,900 in administrative fines.

### Game Promotions

The Game Promotions Program requires operators who conduct contests, games of chance, or gift enterprises in connection with the sale of consumer products or services to file with the Department. Unless they have been granted a waiver, operators are also required to establish a trust account or obtain a bond in an amount equivalent to the total value of all prizes offered. During fiscal year 2004-2005, the Department processed 3,694 game promotion filings, processed 136 written complaints, recovered \$27,191, and collected \$265,000 in administrative fines.

### Health Studios

The Department regulates health clubs that offer health club activities or physical exercise equipment. Some health studios are required to post a \$50,000 surety bond, certificate of deposit, or letter of credit to satisfy consumer claims that may result from violations of Florida law. During fiscal year 2004-2005, the Department registered 1,648 health studios, processed 1,024 written complaints, recovered \$96,765 for consumers, and collected \$57,300 in administrative fines.

### Intrastate Moving

The Department regulates intrastate moving companies operating in Florida. This law requires a written estimate be given to consumers before the mover provides any moving or packing services. During fiscal year 2004-2005, the



Department registered 810 moving companies, processed 736 written complaints, recovered \$57,517 in consumer refunds, and collected \$49,275 in administrative fines.

### Motor Vehicle Repair Shops

The Department regulates all motor vehicle repair shops in Florida in accordance with the Motor Vehicle Repair Act. This law requires an estimate and invoice form be provided to consumers for repair work exceeding \$100. During fiscal year 2004-2005, the Department registered 12,798 motor vehicle repairs shops and conducted 2,198 on-site enforcements which resulted in 349 investigations. The Department processed 2,598 written complaints, recovered \$844,618 for consumers, and collected \$205,606 in administrative fines.

### Do Not Call

The Florida Do Not Call law is a privacy law enacted to protect consumers from unwanted telephone solicitations and pre-recorded messages. Consumers can subscribe to the Do Not Call List for an initial fee of \$10, with a \$5 annual renewal fee. Subscribers may file a complaint with the Department for any unwanted phone calls they have received from non-exempt businesses. Consumers may also file a complaint if they receive pre-recorded messages. At the end of fiscal year 2004-2005, the Department had processed 10,482 new subscriptions and 101,170 renewals for a total of 111,652 subscriptions. The program processed 4,279 written complaints. Twenty-one cases were referred

to the Office of General Counsel for prosecution, and 31 cases were resolved through settlement or court judgment. A total of \$155,188 was collected in administrative fines.

### **Pawn Shops**

The Department licenses all pawn shops operating in Florida pursuant to the Florida Pawnbroking Act. Each pawnshop must maintain a net worth of at least \$50,000 or file a \$10,000 security in the form of a surety bond, certificate of deposit, or letter of credit. During fiscal year 2004-2005, the Department licensed 1,106 pawn shops, recovered \$11,301 in consumer refunds, and collected \$15,000 in administrative fines.

### **Sellers of Travel**

The Department regulates travel agencies in Florida for compliance with the Sellers of Travel Act. Non-exempt sellers of travel must register and, in some cases, submit a performance bond, certificate of deposit, or letter of credit in an amount not to exceed \$25,000, or \$50,000 if they sell vacation certificates. A seller of travel that has been in business for at least five years and meets certain other requirements may apply for a security waiver. In addition, independent agents must submit annual filing statements to the Department. During the 2004-2005 fiscal year, 3,379 sellers of travel and independent agent registrations were received. The Department processed 5,002 written complaints, recovered \$1,635,333 in consumer refunds, and collected \$96,300 in administrative fines.

### **Solicitation of Contributions**

The Solicitation of Contributions Act requires charitable organizations, sponsors, professional fund-raising consultants and professional solicitors to register with the Department. During fiscal year 2004-2005, the Department processed 11,208 registrations for charitable organizations, sponsors, professional solicitors and fund-raising consultants. The Department also processed 166 written complaints, recovered \$36,118 in consumer refunds and collected \$74,859 in administrative fines.

### **Telemarketing**

The Florida Telemarketing Act requires non-exempt telemarketers to obtain a license from the Department and submit a \$50,000 surety bond, certificate of deposit, or letter of credit. During fiscal year 2004-2005, the Department licensed 1,201 businesses and individuals, processed 820 written complaints, and recovered \$159,800 for consumers.

## **Investigations**

The Investigations Section conducts investigations of businesses (both regulated and non-regulated) and responds to consumer complaints. The priority for this group is to ensure businesses operate in compliance with applicable laws. This group also investigates businesses suspected of fraud and deceptive trade practices. During fiscal year 2004-2005, the Investigations Unit initiated 699 investigations covering a variety of topics. The high-volume cases for investigations were motor vehicle repair, sellers of travel, and solicitation of contributions.

## **Consumer Education**

The Division of Consumer Services continued to promote its educational outreach programs aimed at increasing public awareness of consumer protection issues among Florida citizens. During fiscal year 2004-2005, the division provided 3,071,754 assists to consumers and businesses statewide through a variety of formats, including the web site, newspaper articles, newsletters, brochures and public presentations.

Division representatives gave public presentations on consumer-related topics to more than 4,700 consumers representing various groups and organizations throughout the state. Public service announcements were aired on price-gouging during the 2004 hurricane season. Additionally, public service announcements were aired on auto repair fraud and charitable giving. The division also revised its web site to include relevant information to businesses and consumers on various laws, as well as current frauds and scams.

To further increase public awareness, the division created a monthly e-newsletter for Florida consumers. The newsletter provides quick tips on important consumer-related issues and lists resources for finding additional information. At the end of fiscal year 2004-2005, the subscription list contained 4,204 subscribers.

Additionally, the division submits articles on consumer related issues to the Elder Update, a newsletter published bi-monthly by the Department of Elder Affairs. This newsletter is distributed to more than 70,000 senior citizens. The division's educational efforts focus on making individuals better consumers and helping them make more informed decisions when purchasing products and services and signing contracts. The division also functions as the U.S. Consumer Product Safety Commission's liaison in Florida regarding product recalls, inspections and investigations.





## Division of Standards

### Petroleum Inspection

The Department regularly conducts inspections of the petroleum distribution system and analyzes samples of petroleum products to ensure that consumers are offered quality products at fair measure.

In fiscal year 2004-2005, more than 99 percent of the samples collected and analyzed from 10.3 billion gallons of petroleum fuel distributed throughout Florida met state standards, which are considered among the strictest in the nation. The Department issued 320 stop-sale orders to prevent the sale of 630,527 gallons of substandard fuel.

The quality of gasoline, kerosene, diesel and fuel oil is determined at Department laboratories through analyses of octane rating, distillation, vapor pressure, sulfur content and flash point.

Laboratory personnel analyze antifreeze for corrosion, freezing point, boiling point and chemical content as part of the antifreeze registration and regulatory program. Similarly, brake fluid also must pass strict standards for boiling point, elastomer swelling and chemical content before being registered by the Department for sale to the public. The Department registered 465 brands of antifreeze and brake fluid as acceptable products to be marketed in Florida.

In all, laboratory analysts at Department laboratories in Tampa, Tallahassee and Port Everglades analyzed 42,483

samples of petroleum fuels, antifreeze and brake fluid. Department inspectors conducted 197,371 petroleum inspections on retail dispensers at 9,224 petroleum facilities throughout Florida. Inspections included calibrating tests, proper installations and maintenance of measuring devices, and labeling of petroleum dispensers. As a result of these inspections, 1,049 pumps were taken out of service because of improper calibration and 27,499 correction notices were issued for poorly maintained pumps.

The Department handled 5,039 petroleum-related consumer complaints as a result of posting the 1-800-HELPFLA consumer hotline decal on petroleum dispensers. Complaints have concentrated on fuel quality, meter accuracy and price. The field staff is charged with responding to these complaints within 24 to 48 hours. In addition, the Department handled 1,240 consumer complaints related specifically to potential price-gouging, mostly a result of Hurricanes Charley, Frances, Jeanne and Ivan making landfall on Florida's coastline.

The Department continues to use numerous fraud investigation techniques, including the deployment of undercover vehicles to ensure that consumers receive fair measure from petroleum pumps. The unmarked vehicles have a specially designed and calibrated gasoline tank that enables a trained inspector to determine a pump's calibration without a service station operator's knowledge. The undercover vehicles have confirmed that most petroleum pumps are accurate and consumers are receiving fair measure.





### Weights and Measures

The Department performed inspections and tests on over 55,000 weighing and measuring devices, including retail scales, prescription balances, livestock scales, truck scales and taximeters. Of those inspected, 4,679 were found out of compliance with state standards and ordered corrected; another 1,828 were immediately taken out of service.

Department inspectors routinely check the accuracy of net contents and labels of packaged goods such as dry goods, standard-pack food commodities, household items, building and construction materials, gardening products and hundreds of other products purchased daily by consumers and businesses in the state. In fiscal year 2004-2005, inspectors sampled lots representing over 290,000 packages. Stop-sale orders were placed on over 22,000 packages that contained less than the stated contents or failed to provide the required information on the label. Many more packages were recalled or re-labeled by producers as a result of Department inspections.

Inspectors randomly tested 14,792 items for price accuracy in 274 businesses, primarily grocery, department, discount, drug, building supply and other retail stores. Overall results showed that 1.47 percent scanned at more than the posted price and 1.02 percent scanned at less than the price advertised. Violations were corrected immediately, and 36 businesses that failed to meet the 98 percent national accuracy standard faced additional sanctions and testing.

The Weights and Measures Field Inspection and Regulatory Program continues to develop and utilize an automated

inspection data collection system. The system enables the program to utilize resources more effectively in targeting areas of lower compliance.

In the state metrology laboratory, the state primary standards of mass, length and volume were used in comparing and calibrating more than 9,967 mass standards used by state inspectors, laboratories, high-tech industries and commercial scale repair agencies, as well as 713 test measures used to check the accuracy of gas pumps and wholesale meters. The laboratory was audited in 2005 and maintained its accreditation by the National Voluntary Laboratory Accreditation Program, which was obtained in 2003. It is one of a select few state metrology laboratories that has achieved this accreditation. The lab provides Florida citizens and industries with calibration services traceable to national standards, while performing special tests such as standardizing grain samples for use in testing moisture-determining equipment at commercial grain elevators.

### Fair Ride Inspections

The Department has an Amusement Ride Inspection Program which, by reputation, is the most comprehensive of any state in the country.



All amusement rides, except those at the large theme parks which are exempt by law, are inspected and permitted each year by the Bureau of Fair Ride Inspections. Permanent amusement rides – those located at fixed sites – are inspected twice each year. Temporary amusement rides, such as those used by fairs, are inspected each time they are moved or are set up.

The Department has 15 inspection specialists who are stationed statewide and who inspect and permit amusement rides. Department inspectors are constantly trained with recurring on-the-job training, structured training seminars developed by the Department, and continuing education seminars sponsored by the amusement industry, amusement ride manufacturers, safety organizations, and engineers or other subject matter experts.

In fiscal year 2004-2005, the Department issued permits for about 1,600 amusement rides and conducted over 9,400 inspections statewide. Those inspections identified more than 11,200 deficiencies on those amusement rides,

all of which were corrected before the rides were allowed to open for public use. The Department issued 513 stop-operation orders for unsafe, uninsured or un-inspected amusement rides. The Department also investigates accidents and mechanical failures involving amusement rides and, when appropriate, closes and impounds unsafe amusement rides.

The Florida Amusement Device and Attraction Advisory Committee was created by the Commissioner of Agriculture to advise and consult with the Department on amusement ride issues. The committee, which is appointed by the Commissioner, includes a cross-section of members from the amusement industry, fair industry, amusement parks, and technical or subject matter experts. This committee holds at least two public meetings annually to discuss safety issues, ride inspections, ride equipment, industry concerns and other matters in support of the Department's inspection program.

Each year the Department participates in a consultation program with the large theme parks in Florida on safety issues. Department staff visit each of the parks and review safety, maintenance and operation procedures of the park rides. Furthermore, the theme parks file an affidavit of annual inspection with the Department on all their rides. The Department is a member of the American Society of Testing and Materials, Committee F-24, which develops standards for the manufacture, fabrication, performance and testing of amusement rides and devices. The Department is also a member of the Council for Amusement and Recreational Equipment Safety (CARES), a national association of government regulatory officials that shares information among members, and works with the U.S. Consumer Product Safety Commission on amusement ride issues.

### **LP Gas Inspection**

The Bureau of Liquefied Petroleum (LP) Gas Inspection is charged with the regulation of LP gas usage, storage, distribution, handling and transportation from the time the product enters the state until it reaches its final point of consumption. There are over 3,000 storage and distribution facilities in the state and they handle approximately 400 million gallons of propane annually. During fiscal year 2004-05, the Bureau of LP Gas Inspections conducted 9,249 facility inspections, investigated 92 accidents, and issued 10,448 licenses and qualification examination certifications.





The bureau took 4,244 enforcement actions to ensure compliance with safety regulations, including 2,168 notices of noncompliance and 1,689 cease-and-desist notices.

During 2004-2005, the Department's LP gas licensing program was part of a pilot project to design and implement an e-commerce web site which could be utilized by the public to register for examinations and training classes, and renew LP licenses online. Once completed, this project made the bureau's programs more efficient and streamlined, resulting in better customer service for those persons using these resources. It also reduced the overall response time to licensing renewals by as much as two weeks (from receipt to license issuance).

The bureau administered 1,131 examinations during fiscal year 2004-2005. In addition, it conducted over 75 classes for safety training of dispensing unit operator personnel, building officials and pipeline distribution system operators. In May 2005, the bureau co-sponsored the annual Ocala Safety School, which had 125 participants. Each year this weeklong school draws attendees from all over the world.

This year, students came from Florida, New York, North Carolina, Georgia, Alabama, Barbados, Grenada, Guatemala, Panama and Belgium.

In addition to the regulatory duties prescribed in Chapter 527, F.S., the bureau is charged with administrative oversight for the Florida Propane Gas Safety, Education and Research Act. Under this act, a regulatory assessment is to collect annually from the propane gas industry to fund programs for training, education, consumer safety, marketing, research and development programs relating to the propane industry in Florida. In conjunction with this program, the Department maintains a consumer information web site and publishes and distributes thousands of consumer safety brochures relating to home heating safety, safe grilling, general safety practices, and the reporting of gas system changes to gas suppliers. During this past year, approximately 600 industry employees received funding from this program for safety training in codes and regulations.

## Division of Licensing

The Division of Licensing is charged with the responsibilities of maintaining public safety and personal security. The division maintains public safety through its oversight of the private investigative, security, and recovery industries. The licensing and regulatory mechanisms administered by the division ensure that only knowledgeable and qualified individuals are licensed to work in these industries. Also through this program, the state of Florida protects the rights of a law-abiding Florida citizen to carry a concealed weapon or firearm for lawful self-defense.

In fiscal year 2004-2005, the division's operating statistics and performance levels continued their upward trend

**The Division of Licensing is charged with the responsibilities of maintaining public safety and personal security. The division maintains public safety through its oversight of the private investigative, security, and recovery industries.**

of the past several years. The division processed more new and renewal applications (197,419) and issued more licenses (191,212) than ever before. The number of applications processed represents a 23 percent increase over the number of applications processed the previous fiscal year. The numbers of license holders – 136,318 licensees in the regulated industries and 347,350 concealed carry licensees – are also at record-high levels. With so many applicants and licensees, it is no surprise that the division's public inquiry staff responded to 129,744 telephone calls last year.

The division's regulatory and enforcement activities kept pace with the growing number of applicants and licensees. Investigators in the division's seven regional offices located throughout the state conducted 1,838 complaint investigations last year, compared with 1,624 in fiscal year 2003-2004. The number of compliance inspections



increased this year from 6,283 to 6,709. Overall, the number of administrative actions (denials/suspensions/revocations) taken against licensees dropped slightly, from 11,677 in 2003-2004 to 10,995 in 2004-2005.

The license classes with the fastest growth rates over the past few years have been concealed carry licensees and security officers. Both of these groups of licensees grew by almost 4 percent in fiscal year 2004-2005. Florida experienced its lowest crime rate in 34 years during calendar year 2004, according to the Florida Department of Law Enforcement; however, ongoing concerns over personal safety and public security in the wake of the terrorist attacks of September 11, 2001, have resulted in sustained increases in the number of licensees in these classes.

The division made two important achievements in its oversight of the security industry this past fiscal year:

▼ At the request of the National Football League and its private-sector security agency, the Division of Licensing implemented priority application processing procedures so that sufficient numbers of applicants could be licensed in time to provide security services at Super Bowl XXXIX in Jacksonville in January 2005. The division approved applications for over 1,300 security officers. This corps of security personnel were deployed at strategic locations and at different events throughout the week leading up to the NFL's championship game to provide crowd control and crime prevention. Because such high-profile events are always potential targets for acts of terrorism, security surrounding Super Bowl XXXIX was of paramount importance. The Division of Licensing was one of more than 50 local, state and federal government agencies involved in security operations for the Super Bowl.

▼ In January 2005 the division incorporated three hours of terrorism awareness training into its 40-hour curriculum for applicants seeking to be licensed as security officers. This training focuses on recognition of terrorism threats,

evaluation of risks and vulnerabilities, deterrence and prevention, and first response. The Division of Licensing believes that providing the security workforce with this training is an important and useful means of enhancing domestic security. There are already over 100,000 licensed security officers in Florida – over twice the number of sworn law enforcement personnel – and, as indicated by the growth figures stated above, the number of security officers rises steadily each year. By including a terrorism awareness component in Florida's security officer training curriculum (already one of the most demanding training regimens for security officers in the country), the division and its licensees are making a significant contribution to the protection of our homeland.

There are two noteworthy instances in the past year of the division's innovative use of technology to attain greater levels of service and efficiency. In 2003, the division implemented its Licensing Information and Alert System, an Internet-based system that allows the approximately 6,000 licensed agencies, schools, and firearms instructors in the regulated industries to maintain updated emergency contact information online with the division. During the hurricanes of last year, the division used the Licensing Information and Alert System to notify security agencies about regional office closures and the need for security officers in certain counties as a result of catastrophic damage to homes and businesses.

The division also implemented the use of optical character recognition (OCR) in fiscal year 2004-2005 for processing of license applications. The use of OCR technology allows the division to capture pertinent information from application documents without the need for actual data entry by employees into the division's databases. This streamlines the application process, allows for much faster turnaround time, and enables the division to handle significantly greater numbers of license applications without additional resources.



# PROMOTING

## Employee Excellence

**Training and Development:** To ensure optimal service to the citizens of Florida, the Florida Department of Agriculture and Consumer Services invests in its employees by providing numerous training, educational and recognition opportunities. This supportive environment contributes to the superior level of personal commitment and professional pride of its staff.

### Training

To provide the highest quality of service, the Department continuously trains its employees, thus increasing their knowledge, skills, and abilities. During fiscal year 2004-2005, a total of 1,580 employees participated in Department-wide training classes, such as New Employee Orientation, Team Building, Stress Management, Time Management, Diversity, Leadership, Department Supervisory Standards, Conflict Resolution, Meetings Management, Managing Negative Emotions, Overcoming Procrastination, Train-the-Trainer, Advanced Train-the-Trainer, CPR/AED, the People First system, and various software titles. Additionally, 165 user licenses and 33 technical licenses were issued to employees to allow their participation in Internet-delivered computer classes offered by Element K. The Training and Development Section also assisted other divisions with their design, development, and evaluation needs.

### Education

Fifty-two employees, continued their education by taking work-related classes and received tuition reimbursement from the Department, and 109 employees participated in



the state's Tuition Waiver Program. These employees further developed their ability to contribute to the Department by taking classes at universities, community colleges and technical centers throughout the state.

A total of 64 Department managers participated in the Certified Public Manager Program. This two-year program is a systematic approach to training and developing governmental administrators in order to improve

their performance and the performance of government. Since the Department's initial participation in the program, 212 employees have received the designation of Certified Public Manager after successfully completing the program.

### Awards

The Department not only encourages lifelong learning, it rewards those who attain exemplary achievements. Nineteen Davis Productivity Award nominations were submitted, detailing the extraordinary efforts of 1,602 individuals, whose initiative and hard work saved the Department approximately \$6,861,751 this year.

Employees are also recognized for their length of service to the Department. Approximately 608 employees were awarded certificates for their continued service to the Department.

### Minority Businesses

The Department spent approximately \$20 million with certified minority businesses during the 2004-2005 fiscal year. This figure indicates that the Department achieved approximately 557 percent of its minority business spending of the previous fiscal year. For 12 out of the last 13 fiscal years, the Department has exceeded its established minority spending projections.

### Department Web Presence

To keep up with the current trends in technology, the Department has recently enhanced its web presence. Two major initiatives were unveiled this year. The Division of Administration and the Bureau of AGMIC launched the Department's revised web site and ventured into e-government.

The Department's new web site was designed to allow for easier navigation and searching capabilities by the public. The web server handles over a million visits a year, so it is important that the data is up to date and easily accessible, including being compliant with the Americans With Disabilities Act. The Division of Consumer Services web site has pioneered the use of automated language translation to keep up with the multilingual needs of Florida's citizens.

The new e-government web site is the start of the Department's initiative to provide online permits, registration, licensing, and payments to citizens and regulated business entities. Currently, the web site is providing up to 20 percent of license renewals for the Bureau of LP Gas Inspections. In the next fiscal year, the Department is looking to add more programs.

### AGMIC - Agriculture Management Information Center

The Agriculture Management Information Center (AGMIC) has taken major steps to enhance the security posture of the Department's network. During fiscal year 2004-2005, the Department entered into a contract with TruSecure Inc., and obtained the TruSecure Enterprise certification. This certification allows organizations to implement TruSecure's Essential Best Practices for information security to obtain a baseline of security to build upon. The Department reached this certification goal on September 29, 2004.

In the spring of 2005, AGMIC installed and configured an industry-leading Intrusion Detection/Intrusion Prevention Solution. This hardware/software combination allows







the monitoring and blocking of potential intrusions and attacks against the Department's network and public accessible web servers.

### **Continuity of Operations Plan (COOP) and Health, Safety and Security Manual**

The Division of Administration first developed and distributed its Continuity of Operations Plan (COOP) and Health, Safety and Security Manual in 2003. During fiscal year 2004-2005, both the COOP and the manual were updated extensively. The division also conducted an exercise of the COOP, notifying employees and deploying the Division of Emergency Management and Division Response Teams to the Local Alternate Facility (LAF).

During this same period, the Department participated in a multi-agency COOP audit by the Auditor General's Office to determine compliance with Chapter 252.365, F.S. In addition, it updated the Capitol COOP and conducted vulnerability assessments of critical Department facilities and buildings.

### **Office of Inspector General**

The Office of Inspector General (OIG) provides a central point for coordination of and responsibility for activities that promote accountability, integrity and efficiency in government.

### **Auditing Section**

The internal audit activity provides independent, objective assurance and consulting services to add value and improve

the Department's effectiveness of risk management, control, and governance processes. An assurance service is an objective examination for the purpose of providing an independent assessment or opinion in regard to a particular engagement's objectives. A consulting service is an advisory and client assistance service, the nature and scope of which is agreed upon with the client for each particular engagement.

Internal audit activities are performed in accordance with the Standards for the Professional

Practice of Internal Auditing published by the Institute of Internal Auditors, Inc. Audit projects involving information technology are also conducted in accordance with Standards for Information Systems Auditing published by the Information Systems Audit and Control Association.

During fiscal year 2004-2005, seventy-four assurance engagements were conducted covering performance measures, contract management, other financial matters, and information technology processes. In 92 percent of those engagements, the Department was recognized as having implemented best management practices in select areas of risk management, controls, and governance processes. The auditing section also participated in eight consulting services and coordinated 10 external audits or reviews by federal and other state agencies.

### **Investigation Section**

The Office of Inspector General's key investigation responsibilities are to: initiate, conduct, supervise, and coordinate investigations designed to detect, deter, prevent and eradicate fraud, waste, mismanagement, misconduct and other abuses within the Department; receive complaints and coordinate all activities of the Department as required by the Whistle-blower's Act; receive and consider all other complaints and conduct, supervise, or coordinate such inquiries, investigations, or reviews as the Inspector General deems appropriate; conduct investigations and other inquiries free of actual or perceived impairment to the independence of the Inspector

when it is necessary to determine the validity of a complaint prior to the initiation of a formal investigation.

▼ Inspector General Investigations, which include: formal investigations conducted in accordance with Florida statute and/or OIG/Department policy and procedures; sexual harassment investigations; discrimination investigations; Forestry Youth Academy investigations; and Whistle-blower investigations.

During fiscal year 2004-2005, the Investigation Section assumed four cases carried over from the previous year, opened 91 new cases, closed 94 cases, and carried forward one case to the next fiscal year. The Investigative Section also provided law enforcement assistance to the Office of Agricultural Law Enforcement during an extremely devastating hurricane season.



# ANNUAL

FY 2004-2005

# REPORT

